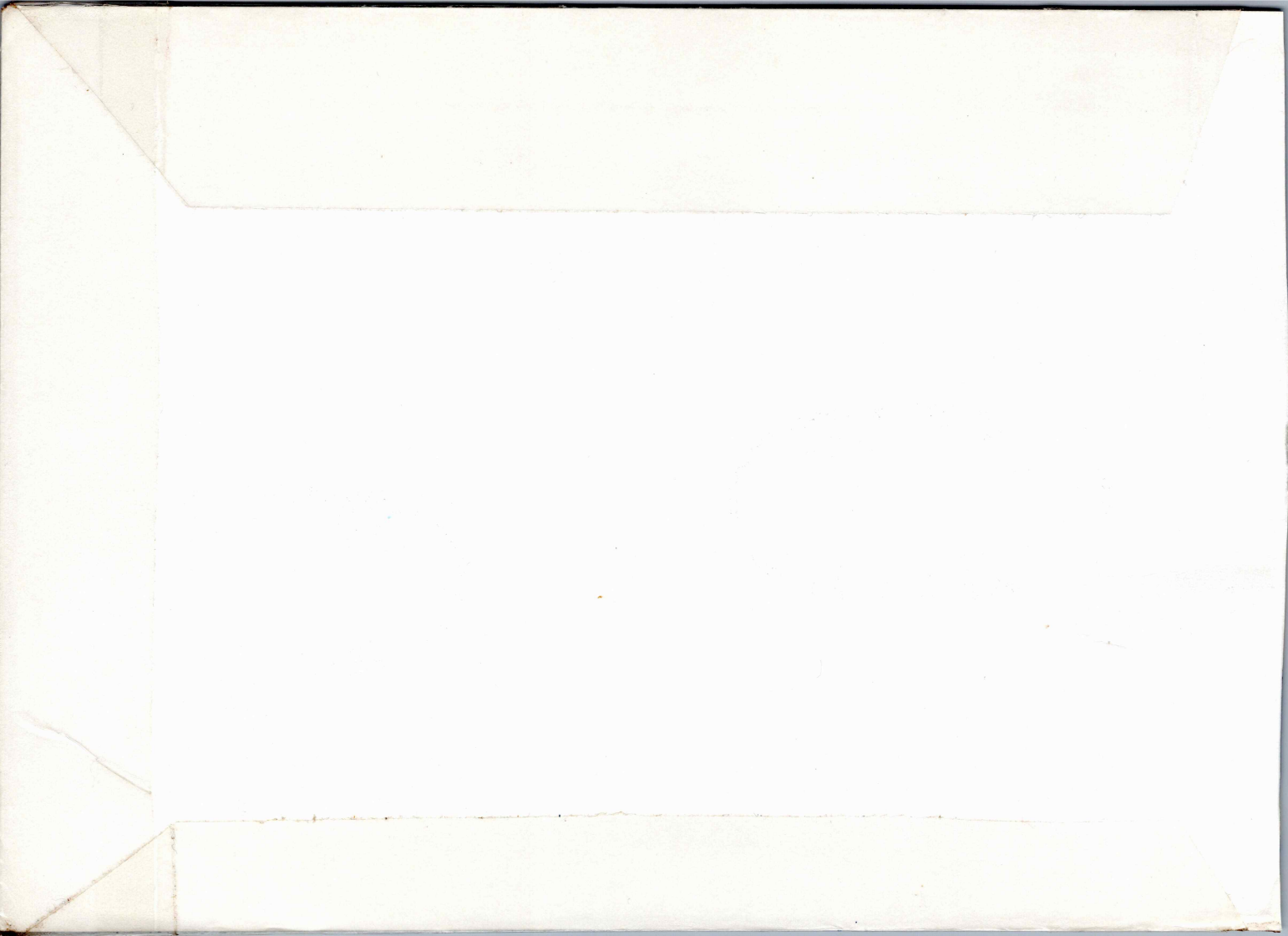


150 YEARS OF PRINTING IN NEW ZEALAND





150 YEARS OF PRINTING IN NEW ZEALAND

Compiled and edited by
Tolla Williment



Published by the Government Printing Office 1985

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ISBN 0-447-01335-X

Credits

The Government Printing Office would like to thank the following organisations for their contribution to the production and printing of *150 Years of Printing in New Zealand*:

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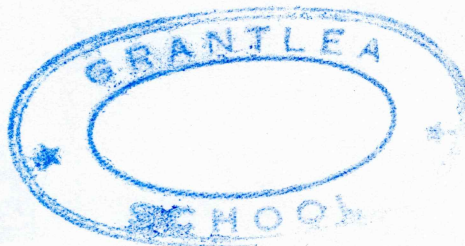
— colour separations and final printing of the cover

New Zealand Forest Products Limited

— donation of all printing paper

Caxton Press

— illustrative examples in “Fine Printing” chapter



*“Printing—the art
preservative of
all the Arts”*

PLAQUE, GOVERNMENT PRINTING OFFICE.

Acknowledgments

I wish to thank most warmly the many people who have assisted me during my research of this book. In particular:

Gordon Summerville, Phillip McCarthy and Colin Reed of the Bible Society in New Zealand, for their interest in, and promotion of, this work.

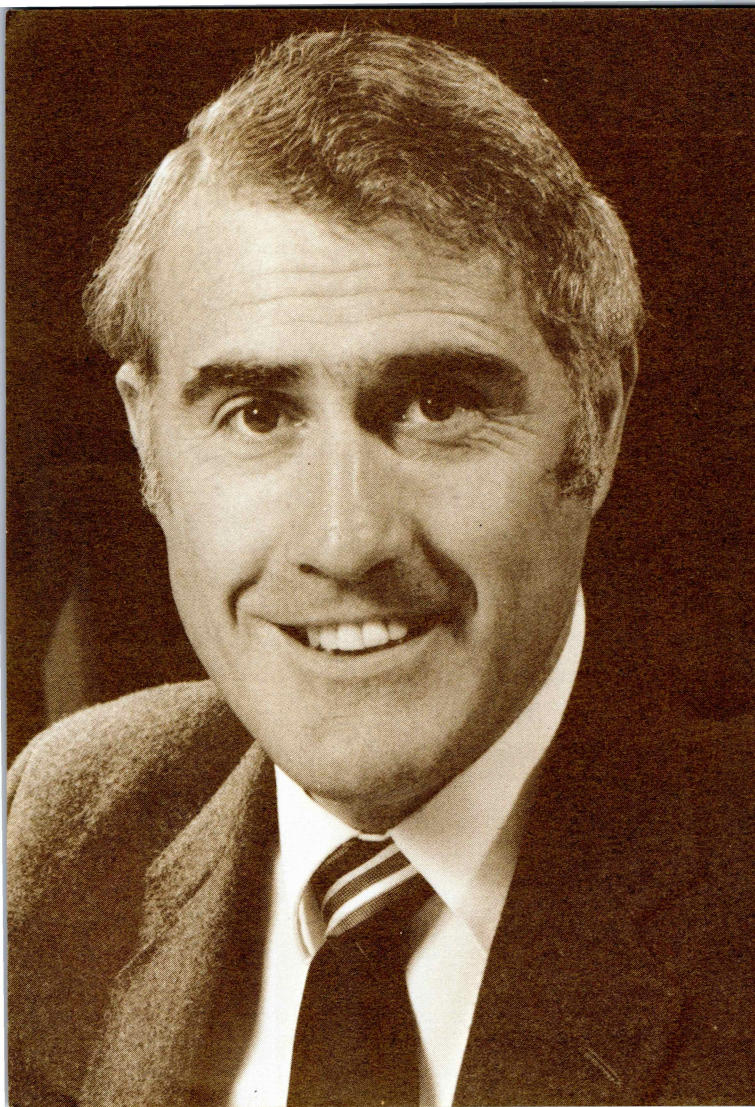
To Professors Don McKenzie and Roderick Cave, who read and commented on the text; to Professor Les Cleveland and Kathleen Coleridge also of Victoria University; to Don Bryant; Bryce Francis of the Printing Industries Federation of New Zealand; to Penelope Griffith of the Alexander Turnbull Library; to Michael Leggot, Jim Mauger, and other members of the Printing Industries Federation of New Zealand; and lastly to the staff of the Government Printing Office, for their advice, assistance and encouragement which I have received and is greatly appreciated.

To these and others, I extend my grateful thanks.

Tolla Williment

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Foreword

I am pleased to be associated with this publication to celebrate 150 years of printing in New Zealand as there is a strong relationship between this event and government printing.

The direct relationship of printing to the advancement of a country's educational standard is also worthy of recognition.

The printing industry of New Zealand can be justly proud of their contribution to the growth of New Zealand.

The first book to be produced in New Zealand was printed by William Colenso, a missionary printer at Paihia on 17 February 1835. It consisted of a slim volume of 16 pages, the first draft in an edition of 25 presentation copies of the Rev William Williams's translation in Maori of The Epistles of St Paul to the Ephesians and to the Philippians, bound in covers of pink blotting paper.

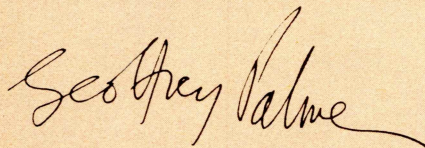
As William Colenso had the best established printing press in New Zealand between the years 1835 and 1840, Governor Hobson commissioned Colenso to print government proclamations (for which, incidentally, he received no remuneration). This, Colenso did until 1841 when his fellow missionaries told him the press was to be used only for holy works (which I presume did not include government work) after which no further work was done for the government on the mission press.

During this period, Colenso also printed the first copies of the Treaty of Waitangi. On 17 February 1840 he was commissioned to print 200 copies in Maori.

It was due to these strong links between William Colenso the missionary, and William Colenso the printer (who undertook to print government works), that the Bible Society in New Zealand approached the Government Printer with a view to producing a publication commemorating this anniversary.

The Bible Society felt the event was of such historic significance that a publication should be produced to mark the occasion and should be made available to all interested parties at minimum cost. To this end, the assistance of sponsors was sought and my thanks go to all those firms who, by way of their generous donations, have made this publication possible.

Special thanks must also go to the Bible Society in New Zealand for their original idea to mark this historic occasion and the enthusiasm with which they have got behind this project, and to the Government Printer for taking up the challenge and ensuring the anniversary of 150 years of printing in New Zealand did not go unheralded.

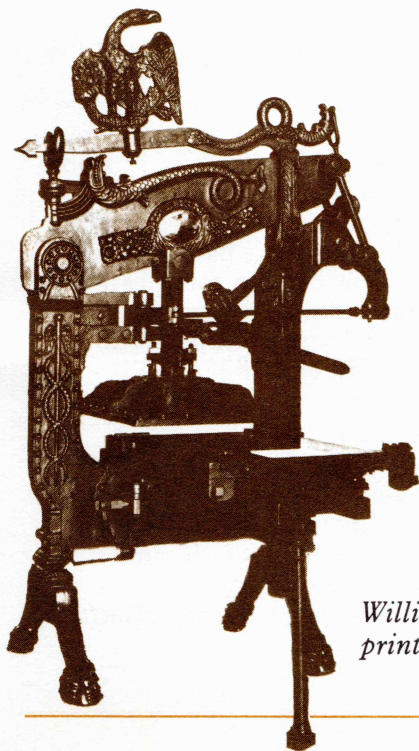
A handwritten signature in dark ink, reading "Geoffrey Palmer". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Hon. Geoffrey Palmer
Minister in Charge of the
Government Printing Office

William Colenso.



The Missionary Presses



*William Colenso's
printing press.*

In the nineteenth century, a great evangelical outreach spread Christianity to many parts of the world. Through the dissemination of Christian teachings, the missionaries of the various missionary societies worked for the spiritual, as well as the physical welfare of many of the world's peoples.¹

In New Zealand, missions were established by the Church of England, the Wesleyan, and later, the Roman Catholic denominations. In order to communicate their beliefs, the missionaries needed a knowledge of the Maori language. This language "abounded with poetry of rare beauty . . . the aristocratic and priestly class of the *whare-wananga*, the sacred school of learning, had developed religious concepts which were deeply abstract . . . The Maori language was fully capable of formulating and expressing these ideas. But at that stage it was only a spoken language."²

The task of reducing the language to its alphabetical form was first undertaken by

Thomas Kendall, formerly a London schoolmaster, who had arrived in New Zealand with the Rev. Samuel Marsden in 1814. A simple book of instruction, *A Korao no New Zealand*, which Kendall compiled, was printed in Sydney the following year. Although the Maori used can barely be recognised as such, it was yet a beginning.

In 1820 Kendall, together with Hongi Hika and Waikato, 2 Maori chiefs, assisted Samuel Lee, Professor of Arabic at Cambridge University, in the compilation of a more scholarly work, *A Grammar and Vocabulary of the Language of New Zealand*. (This book contained The Lord's Prayer, the first portion of Scripture printed in Maori.) In this book, a grammar was evolved and an orthography settled. The Maori alphabet set down contained 5 vowels, 18 consonants, and the digraph ng. Some of the consonants were for non-Maori sounds thought necessary for foreign words. By 1830, the alphabet had been reduced to 5 vowels and 9 consonants, with only 2 forms remaining unsettled, h and

w. Today, the Maori language is written with 5 vowels, and 10 consonants—h, k, m, n, p, r, t, w, ng, wh.³

The Rev. William Williams, a gifted linguist, was principal translator for the Church Mission in New Zealand. Translation of the New Testament was from the original Greek, while Old Testament translations were from the original Hebrew. By 1827 sufficient material had been translated for the printing of a 31-page book containing parts of the Bible, The Lord's Prayer, and some hymns, a few hundred copies of which were printed in Sydney. New and enlarged editions of this book followed in 1830 and 1833.

In 1830, the Rev. William Yate spent 6 months in Sydney supervising the printing of books. While there, he heard that a press was at last being sent out. He engaged a 15-year-old assistant, James Smith, and arranged for him to receive some rudimentary training at the *Sydney Gazette* office.

These two returned to Kerikeri with the press, and began their printing venture with high hopes. Of their first attempt—*He Himene*—some hymns, no trace remains. From their second, *Ko te Katikihama III* (part 3 of a catechism), it was seen that the complexities of the press had defeated them. Badly smudged and unevenly printed, this 4-page item was very difficult to read. Yate's confidence declined, and the press lay idle for some years. It was next purchased by one Benjamin Isaacs, who used it for newspaper printing.

In 1833, the Church Mission Society decided to appoint a trained printer to New Zealand, selecting William Colenso of Truro, Cornwall for the post. Before leaving England, Colenso worked with Richard Watts and Son of London, printers to the British and Foreign Bible Society and the C.M.S., and his zeal for missionary work continued to increase.

The obstacles Colenso faced on his arrival in New Zealand were a severe test of his

resourcefulness. No jetty existed at Paihia, and the cumbersome iron Stanhope press and heavy boxes of type were transported on a platform spanning 2 Maori canoes. The type was brought ashore unopened, as it was suspected that some Maoris wanted it for melting into ammunition. Maoris from the mission carried the press ashore to a vacant room in one of the missionaries' rubble and stone houses. The C.M.S. had ordered from Watts without consulting Colenso, and much important equipment was missing.

"Types, ink, a press, and lastly a ponderous roller-mould, were apparently in their opinion all that a reasonable man had a right to expect" Colenso later recalled. There was no printing paper, no leads, brass rule, galleys, inking table and no composing stick.

Colenso had to improvise. A local joiner was found to make cases to his design, to accommodate the 14 letters of the Maori alphabet. For a while Colenso used the iron table of his press as an imposing stone, until a C.M.S. stonemason—improvising *his* own

equipment—managed to cut a Kerikeri river boulder in two. The missionaries gave their writing paper, and within 6 weeks the press was ready for operation.

On 17 February 1835, in a room crowded with spectators of both races, Colenso pulled off the press the first proofs of *The Epistles of St Paul to the Ephesians and to the Philippians*, in Maori. This was the first book to be printed in New Zealand. Twenty-five copies were cut, stitched, and bound in pink blotting paper given by the missionaries' wives.

Later that year, in December, some paper was unearthed in the Mission's Stone Store at Kerikeri, enabling Colenso to print more copies of the Epistles, and copies of *The Gospel According to Saint Luke*. In 1836 he printed the first book in English—the 8-page *Report of the Formation and Establishment of the New Zealand Temperance Society*. (This society aimed to bring sobriety to a notorious area.)

Three months later, Colenso learned that the missing items he needed were at last being sent out, and he began the long task of handsetting type for the New Testament in Maori. Three Christian chiefs from Kawakawa helped for a time, being paid £3 a week each, and their keep. These men found the long hours of standing at the press scarcely endurable, much preferring the active routine of collecting firewood and shellfish, and other work with which they were familiar. Colenso found their note—a regretful “O Sir, we are gone!” He was delighted when, on occasion, four trained printers left their American whaling ships to help him.

In December 1837, Colenso finished printing the New Testament in Maori. Five thousand copies of the 356-page book were printed, 1000 being for the Wesleyan Mission. The British and Foreign Bible Society provided funds for the C.M.S.' books. This society had been formed in 1804, in response to an increasing demand for Bibles in Britain and in many other countries. Its aim was to print

Right: A page from Colenso's *The Epistles of St Paul to the Ephesians, in Maori*.

Below: A modern English version of the same text.

PAUL'S LETTER TO THE EPHESIANS

1 From Paul, who by God's will is an apostle of Christ Jesus —

To God's people who live in Ephesus, those who are faithful in their life in Christ Jesus:

² May God our Father and the Lord Jesus Christ give you grace and peace.

Spiritual Blessings in Christ

³ Let us give thanks to the God and Father of our Lord Jesus Christ! For he has blessed us, in our union with Christ, by giving us every spiritual gift in the heavenly world. ⁴ Before the world was made, God had already chosen us to be his in Christ, so that we would be holy and without fault before him. Because of his love, ⁵ God had already decided that through Jesus Christ he would bring us to himself as his sons — this was his pleasure and purpose. ⁶ Let us praise God for his glorious grace, for the free gift he gave us in his dear Son!

⁷ For by the death of Christ we are set free, and our sins are forgiven. How great is the grace of God, ⁸ which he gave to us in such large measure! In all his wisdom and insight ⁹ God did what he had purposed, and made known to us the secret plan he had already decided to complete by means of Christ. ¹⁰ God's plan, which he will complete when the time is right, is to bring all creation together, everything in heaven and on earth, with Christ as head.

¹¹ For all things are done according to God's plan and decision; and God chose us to be his own people in union with Christ because of his own purpose, based on what he had decided from the very beginning. ¹² Let us, then, who were the first to hope in Christ, praise God's glory!

...and you also: when you heard the

Ko te Pukapuka o Paora te Apotoro ki te Hunga o EPEHA.

UPOKO 1.

No Paora no te apotoro o Ihu Karaiti, i meinga ki te hiahia o te Atua, ki te hunga tapu i Epeha, ki te hunga e wakapono ana ki a Karaiti Ihu;

2 Hei kaha mo koutou hei maunga rongo no te Atua to tou matua, no te Ariki hoki no Ihu Karaiti.

3 Ka wakapaingia te Atua te matua o to tatou Ariki o Ihu Karaiti, nana nei tatou i wairua mo nga mea o te rangi i te Karaiti:

4 Ki te ritenga hoki o tana i wiriwiri i a tatou ki a ia i o te orokohanganga o te kauhau ai tatou e riria, kia tapu e tona aroaro i te aroha.

5 Nana ano tatou i mea i kia wakatamarikitia ki a Ihu Karaiti, rite tonu ki hiahia i pai ai,

6 Mo te wakapainga o te riria o tana atawai i tatou, mo ta te tamaiti e aroha nei.

7 Nana hoki, na ona toto waiwi nei tatou ki te murunga o te ritenga o tana atawai

8 I oha ai ia ki a matou ki te

matauranga katoa ki te matauranga o nga taima, kia huihuia nga mea katoa i te huihuia o nga rangi ko raiti, ko nga mea i a ia ano;

9 Nana ano hoki i a matou te ngaronga o rite tonu ki tana i pai ai, i wakaroa hoki e ia i mua;

10 Ara i te wakaritenga o wakakapinga o nga mea i huihuia nga mea katoa i te raiti, ko nga mea i a ia ano;

11 Nana hoki matou i wairua mo nga mea o te rangi i nei nga mea katoa, ki te hine- ngaro o tana hiahia;

12 Kia waiho ai matou hei wakapainga i tana kororia, a matou i wakaro ki te Karaiti i

13 Nana ano hoki koutou i wiriwiri ai ki te taonga, i to koutou rongonga ai ki te kupu o te pono, te rongo pai o to koutou oranga, a i to koutou wakapono- tangi ki tana kupu i wai tohu- ngia koutou ki te Wairua tapu i korerotia;

14 Ko ia hoki te tohu o to taonga ki ai ra ano te wakaoranga o tana kororia.

15 No konei hoki a hau no taku rongonga ki to koutou waka-
A 2

these at the lowest possible cost. In the 1840s, the Bible Society printed 60 000 copies of the Maori New Testament, and undertook further reprints in almost each succeeding decade of the nineteenth century.

The New Testament, printed in the Maoris' own language, was a source of inspiration, and many Maoris were converted to Christianity; while many who could not read listened eagerly when Bible stories were read or told to them.

Colenso continued his printing output until 1842, when he left to study for ordination. Added to his printing of Maori translations was his printing for the early colonial government, which was established following the signing of the Treaty of Waitangi in February 1840. (The whereabouts of the Stanhope press used by Colenso are not known.)

In the early 1820s the Wesleyans established a mission station at Whangaroa, and in early 1827 this was destroyed by stragglers from Hongi Hika's war party. During these years,

the Wesleyans had made progress in the Maori language. John Hobbs, then employed as an artisan to the mission, was its only translator and composer at that time. In 1826 he translated The Lord's Prayer, and this version was printed in Darlington in 1827.

Later that year the Wesleyans returned to New Zealand with a supply of printed material from Sydney, and set up another station in the Hokianga. In 1833 Hobbs was transferred to Tonga, where he took over the duties of the printing press from William Woon (also of Truro, Cornwall). The following year, Woon arrived in New Zealand, where he was appointed as missionary/printer. At that time "the desire for books and portions of Scripture was intense. It had been partly supplied by the Church of England Mission Press at the Bay of Islands".⁵

The Wesleyan Missionary Society sent out a Columbian press, but this was immersed in salt water when the *Friendship*, which carried it, was shipwrecked off Norfolk Island. The

press arrived in New Zealand in 1836, and was installed in a raupo hut at the Mangungu Mission Station.

In 1836 Woon began printing 2000 copies of a 120-page *Harmony of the Gospels*, although to complete this he had to borrow type from his Church missionary colleagues.

John Hobbs arrived from Tonga early in 1838. Soon afterwards he “put the press into thorough working order, and for many years it was invaluable . . .”⁶ By the end of 1838, some 24 000 pamphlets and other items were printed. In the early 1840s their work included Hobbs’ translation of The Book of Job into Maori, some 10 000 copies of which were printed, as well as 6000 copies of translations from the Old Testament. Hobbs was a master of idiomatic Maori.

A 4-page pamphlet printed soon after the arrival of the Roman Catholics reflected the antipathy which then existed between Protestants and Catholics. This was “Ko te

Anatikaraiti—the Anti-Christ”—an attempt to undermine the Roman Catholic faith.

In the early period, the Wesleyans’ huge circuits demanded much travelling; there were few ministers, and little funding to pay for help. Maori assistants worked at the press, and Maori lay preachers carried the Gospel to distant places. When the Hokianga missionaries sailed to Cloudy Bay in the South Island in 1839, numbers of Maoris stood “up to their middles in water”⁷ asking for books. One owned a copy of St Paul’s Epistles, while fragments of another were being carefully copied.

Over a 10-year period an estimated 30 different items of literature were printed by the ministers at Mangungu. At one time a 40-kilometre journey by sea was needed for checking the proofs. The mission was interrupted by Heke’s Wars in the mid 1840s, and Woon was transferred to a southern station. By that time the Methodist Church was centred in Auckland, and it was more

efficient to have the bulk of the printing carried out there.

In 1858, a Wesleyan and Anglican Committee under Dr Robert Maunsell, who was the principal translator of the Old Testament, met to revise translated Biblical material. The first entire Bible in Maori was printed in 1868. Further editions were printed in 1887, 1924, 1952, and 1977. Eminent Maori scholars and churchmen, including Sir Apirana Ngata, the Rt. Rev. F. A. Bennett, Bishop of Aotearoa, and the Rev. W. N. Panapa, his successor, were members of a committee formed in 1946 to work on improving and clarifying still further, the translation of the Maori Bible.

The third missionary press in New Zealand was that of the Roman Catholic Mission, under Bishop Pompallier.

The Bishop arrived in the Hokianga in 1838 and the following year moved his mission to Kororareka (New Zealand's first, temporary capital) in the Bay of Islands. A small printing outfit had been received there in

1839 with the first reinforcements of the Catholic Mission. Although various parts were missing, they managed to produce a reasonably good 8-page pamphlet based on the Catholic faith. Pompallier then wrote to the mission's parent society in France asking for first-class presses.

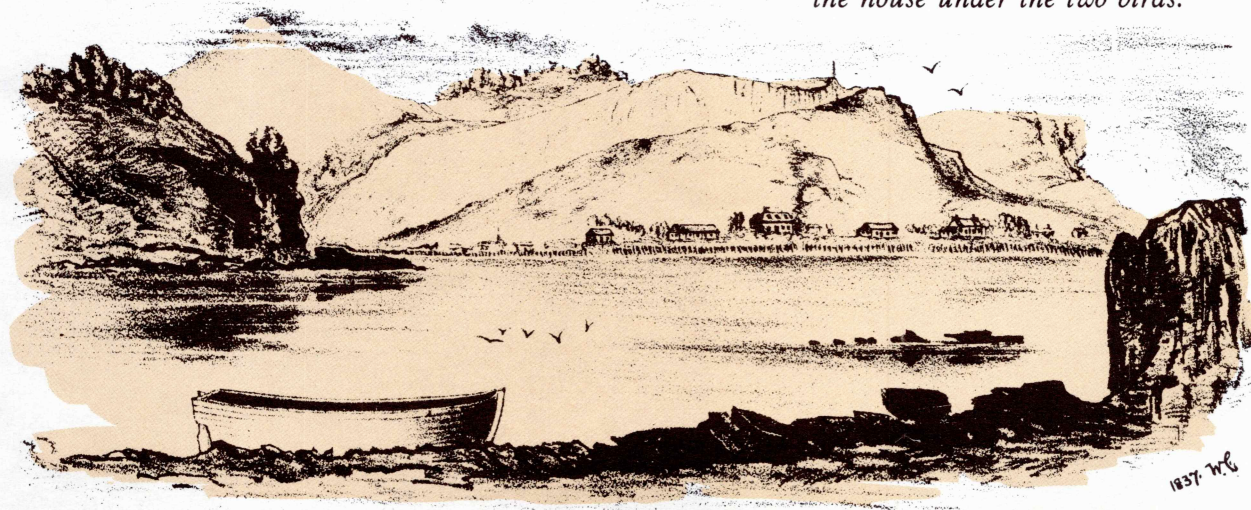
The Catholic Maoris were anxious to obtain books about the Catholic faith. In 1841 a brand new press, together with an old iron press (a French Gaveaux modelled on the English Stanhope press), arrived.⁸ An eagerly awaited book, containing a statement of Roman Catholic doctrine by Bishop Pompallier and 9 parts of a catechism were printed, probably under the supervision of one of the fathers, Father Baty, by M. Yvert, a lay brother who was also a printer and bookkeeper to the mission. In 1843, Brother Luke and Brother Emery were also listed as being printers (and carpenter and tailor) respectively to the mission. However, when printing could not easily be undertaken, the work was given to commercial printers. Altogether, 7 different items of literature

were printed between 1842–1847, when their use of the press ceased. In the early 1850s, this press was sold to Williamson of Auckland, and from 1856 it was used to print the newspaper of the Maori King. It is now preserved at Pompallier House, Russell. The wooden press was bought by an American, and arrived in California in 1850.

(Information for the latter part of this chapter in particular, was obtained from:

Macmillian, Fiona, *The Spread of Printing*, Amsterdam, Van Gendt, 1969.)

*A drawing by Colenso of Paihia.
The New Testament was written in
the house under the two birds.*





Tarore and her Gospel

Tarore was the 11-year-old daughter of a Waikato chief, Ngakuku, and was sent by her father over the Kaimai's to Tauranga to learn to read in her native tongue from the Browns, who were missionaries there.

As a departing gift, Mrs Brown gave Tarore one of Colenso's translations of St Luke's Gospel. Tarore treasured the gift and kept it in a bag round her neck by day, and beneath her pillow by night.

Some time later, Tarore went with some of her father's people on a journey which carried them past the Wairere Falls. They camped there, and smoke from their fires wafted up the rock face of the waterfall. This disclosed their position to a hostile Arawa party in the vicinity.

Little Tarore did not escape when the camp was overrun. The Gospel beneath her pillow was carried away by the Arawa Maoris as a prize.

The chief Uita, who had been responsible for Tarore's death, happened to hear words from Tarore's Gospel when these were read aloud by a visiting slave, Ripahau. They had a profound effect, and he accepted Christianity.

Another dramatic chapter in the life of the St Luke's Gospel took place on Kapiti Island where Tamihana, son of the warrior chief Te Rauparaha, was anxious to learn to read. Among the array of prayer books and printed material which were gathered for the purpose were the tattered remnants of Tarore's gospel. Tamihana, too, became converted, and in subsequent years, with great courage, he travelled extensively to minister to many who had suffered by his father's hand.

Christianity was widely adopted in the Otaki area, and Bishop Hadfield was sent to the district in answer to requests.

In later years, Maori children from the Otaki area voluntarily contributed to the British and Foreign Bible Society funds to send Bibles and New Testaments to such diverse places as India, Japan, and Labrador.

NEW ZEALAND GAZETTE.

No. 2.]

PORT NICHOLSON, SATURDAY MORNING, APRIL 18, 1840.

[Vol. I.]

The first number of this journal was issued in London.

It is with pleasure we present the second number in the Colony this day. We feel assured great allowances will be made for the difficulties necessary in the way of such an undertaking in this early state of our civilisation. We pursue still not feeling further on the present occasion respecting ourselves, than that our utmost endeavours will be used to render the paper really useful to the just interests of our fellow countrymen in the land of their adoption.

PROVISIONAL CONSTITUTION.

WE, THE UNDERSIGNED, intending to inhabit the New Zealand Land Company's first and principal Settlement, with the view to provide for the peace and order thereof, do hereby agree amongst ourselves, and pledge our honour to submit ourselves to the following regulations, and to enforce them, that is to say—

1st.—That all the persons parties to this agreement shall submit themselves to be measured and drilled under the direction of persons to be appointed as hereinafter mentioned.

2nd.—That in case a person shall commit any offence against the Law of England, he shall be liable to be punished in the same manner as if the offence had been committed in England.

3rd.—That in case any dispute shall arise, such dispute shall be decided in the manner hereinafter mentioned.

4th.—That a Committee shall be formed of the following persons:—

Colonel WILLIAM WAKEFIELD, the Company's Principal Agent;
GEORGE SARGENT EVANS, Esq., Barrister at Law;
Messrs. HENRY WILLIAM PETER, DUDLEY NICHOLSON, Esq., FRANCIS ALEXANDER MONTGOMERY, Esq., Captain EDWARD DAVIES, WILLIAM MIEN SMITH, Esq., the Company's Surveyor-General.

RICHARD DAVIS HENSON, Esq., EDWARD BETTS HUGHES, Esq., GEORGE DEFFA, Esq., GEORGE HEMLEY, Esq., HENRY MORING, Esq., HENRY S. MILLER, Esq., THOMAS MITCHELL, PARTRIDGE, Esq., Major DAVID STARRIE, Esq.

This Col. WILLIAM WAKEFIELD shall be the President thereof. That in all cases the Company's principal officer shall be the President. That the Company shall have the power to appoint five additional members. That the Committee shall have the power to add five additional members. That the number of members shall not exceed twenty-five. That five members shall be a quorum for all purposes. That SARGENT EVANS, Esq., shall be the first Secretary to the Committee.

5th.—That the Committee shall have the power to make rules for their meetings, and to appoint the necessary officers; and that meeting of the Committee shall take place within three days after five members shall have arrived in the Settlement.

6th.—That the Committee shall have power to appoint a person who shall be called an Umpire; and that GEORGE SARGENT EVANS, Esq., Barrister at Law, shall be the first Umpire. That the Umpire shall preside in all criminal proceedings, and assisted by seven Assessors, shall decide on the guilt or innocence of the party accused.

7th.—That if the party be declared guilty, the Umpire shall state the punishment to be inflicted. Provided, that without the special approval of the Committee, no imprisonment to be stated by the Umpire shall exceed one month, and no fine be so more.

IN PORT.

Ship "Adeleide," Wm. Campbell; T. M. Partridge and Co., agents.
Barque "Glenbervie," J. Black; Hunter and Co., agents.
Barque "Tory," Chaffers; New Zealand Land Company.
Barque "Integrity," 220, Pearson; J. Wane, agent.
Ship "Middletons," Monroe.

LOADING.

AT SYDNEY, for New Zealand, in list of 16th March.—Barque "Henry Percher," 483, Hutt; Montefiore and Co.—barque "Justice," 265, Lott; Abernethy and Co.—"Sarah and Elizabeth," 270, Davison; Montefiore and Co.—"John Duncanson," 90, for Port Nicholson; Ableby Bay, to sail 17th March.—barque "Tamar," 153, J. Northwood, for River Thames and Port Nicholson; and "Indemity," 205, for Bay of Islands and Hokianga.—barque "Vincennes," for New Zealand.
CLAREM.—"Edo" and "Magnet," for New Zealand.

HADDO'S SHIPPING LIST, Nov. 8th.—"Box" are of purchasers of whole oil, whalebone, wool, flax prepared for the European market, generally of all descriptions of New Zealand produce; and will make advances for goods consigned to their friends, Messrs. Arthur Wills, Sons, and Co., of London.

THE list of passengers and cargo of the vessels chartered by the New Zealand Company, will appear in our next paper.

SHIPPING INTELLIGENCE.

ARRIVED.

Sept. 20, 1839, barque "Tory," 380 tons, Capt. Chaffers, London; New Zealand Land Company.
Nov. —, schooner "Hokianga," Bay of Islands; missionary vessel.
Dec. 4, cutter "Success," 80, Callin, Sydney.
Jan. 4, 1840, barque "Cuba," 270, J. Newcombe, London; New Zealand Land Company. Brig "Elizabeth," 156, Garrett, Sydney.
Jan. 24, barque "Aurora," 550, Heald, London; immigrants. Schooner "Seamount," 79, J. Anderson, Sydney. Barque "Eleonor," 152, Rhodes, Sydney.
Jan. 21, barque "Orion," 206, Wilson, London; immigrants.
Feb. 8, barque "Duke of Roxburgh," 417, Leslie, London; immigrants.
Feb. 20, barque "Nepal Merchant," 503, Higgins, London; immigrants. Immigrants. Brig "Gude," 147, Stutz, Bay of Islands.
Feb. 25, barque "Orion," 206, Wilson, Sydney; cattle. Brig "Atlas," Mayhew, Entry Island.
March 8, barque "Cuba," 270, J. Newcombe, Cock's Straits.
March 1, ship "Adeleide," 640, William Campbell, London; immigrants. Barque "Glenbervie," Black, London; cargo.
March 6, barque "Tory," 380, Chaffers, Knapes, New Zealand Land Company.
March 16, ship "Lady Lilith," 506, Kermah, Sydney; stock.
March 20, brig "Nimrod," 174, H. H. Sully, and Bay of Islands; cargo.
March 27, ship "East Stanley," 250, Tilly, Port Philip; immigrants and stock.
March 29, brigantine "Hannah," 90, Laddell, Sydney; cargo. Brig "Integrity," 220, Pearson, Hobart Town; stock and cargo.
April 5, ship Middletons, 564, Monroe, Sydney; stock.

SAILED.

Sept. —, 1839, barque "Tory," 380, Chaffers, Knapes. Schooner "Hokianga," Bay of Islands.
Dec. 21, cutter "Success," 80, Callin, to the South. Cutter "Aquila," to the South.
Dec. 9, —

THE SURVEYOR-GENERAL'S DEPARTMENT.

PERSONS having claims against this department are required to send in their accounts by SATURDAY next, the 25th inst., to the Surveyor-General, at the Surveyor-General's Office, April 18, 1840.

NOTICE.

ALL PERSONS taking up their residence on the Beach, are requested to notify the same with their names, at this office. Removals from the Beach are to be notified in like manner.

J. LEWIS.

Chief Clerk, Land Office.
Port Nicholson, April 13, 1840.

THE UNDERSIGNED have for Sale, the following consignments per "Glenbervie": Wine, port, sherry, and Tonicif, in wood and cask.
Brandy, rum, Geneva, &c.
Scent, in bladders.
Pickles, mustard, pickles, &c.
Canned and preserved.
Window glass.
Stationery.
Writing apparel from some of the first London houses.

For Sale, by the undersigned, of whole oil, whalebone, wool, flax prepared for the European market, generally of all descriptions of New Zealand produce; and will make advances for goods consigned to their friends, Messrs. Arthur Wills, Sons, and Co., of London.

THE list of passengers and cargo of the vessels chartered by the New Zealand Company, will appear in our next paper.

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FOR SALE, BY THE SUBSCRIBERS.

Have's London soap, in 25lb. and 16lb. boxes.
Lost about Col. Wakefield's, 300 dozen Haden's pale ale, 50 West Wall's champagne, 200 2-cut yellow deals, 84 lbs superior Brandy, 30 casks nails, assorted.
T. M. PARTRIDGE and CO.
11th on Sydney.
Port Nicholson, 8th April, 1840.

THE UNDERSIGNED offer for Sale, on the

Lost about Col. Wakefield's, 300 dozen Haden's pale ale, 50 West Wall's champagne, 200 2-cut yellow deals, 84 lbs superior Brandy, 30 casks nails, assorted.
T. M. PARTRIDGE and CO.
11th on Sydney.
Port Nicholson, 8th April, 1840.

WEEKLY MARKET.

M. J. TELFORD has arranged to have a SATURDAY EVENINGS, at his Warehouse, from 4 to 7 o'clock, being intended chiefly for the accommodation of Workmen's Families. The following articles will be in stock in quantities, at reasonable prices:—Flour, oatmeal, sugar, coffee, butter, cheese, candles, soap, &c. &c.
Port Nicholson, April 16, 1840.

SALE AUCTION.

M. J. TELFORD will sell, by auction, at his Warehouse, on MONDAY and TUESDAY next, at 2 o'clock, p.m., in quantities to suit purchasers:
30 to 40 dozen good cherry, in bottle, 50 doz. Dunsbar's pale ale, 12 doz. porter, in bottle.
Negroed labour.
Leaf sugar of good quality.
Cheese, in 4lb. to 5lb. cheese, Brandy of superior quality.
A parcel of Scotch bonnets.
A quantity of white pane deals of good quality.
A quantity of various goods.
And a general assortment of hardware.
Port Nicholson, 16th April, 1840.

LAND ORDERS.

M. J. TELFORD has on Sale, Town and Country Sections, about New 550 and 802.
Port Nicholson, 16th April, 1840.

LAND.

A Gentleman wishing to dispose of a application to
M. J. TELFORD, Esq., at the Surveyor-General's Office.
Last Test, west end of the Beach, 8th April, 1840.

LAND.

WANTED TO purchase, with Town Acres, between New 200 and 300, Address N. Z. Co., at the "Gazette" Office.
April 9, 1840.

LAND.

WANTED TO purchase, SEVERAL TOWN WALLACE respectively inform the Colonists, that they will next week open their Store, directly next to the Beach, for the sale of Miscellaneous Goods, all of the best quality, at the lowest prices.
April 11, 1840.

FOR SALE BY PRIVATE CONTRACT.

Ex "East Starboard,"
to Messrs Elliot's supercargo, 6 cases containing
Port Nicholson, 16th April, 1840.

FIFTY bags of.

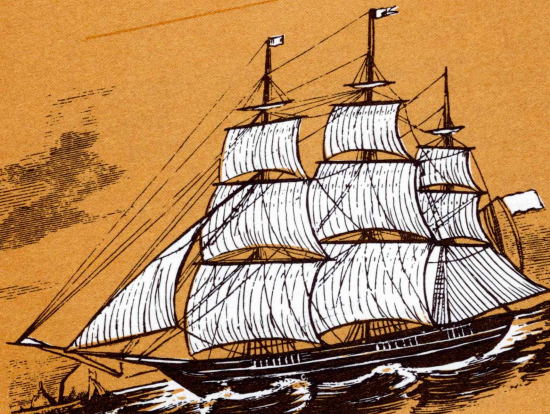
to Messrs Elliot's supercargo, 6 cases containing
Port Nicholson, 16th April, 1840.

FOR SALE.

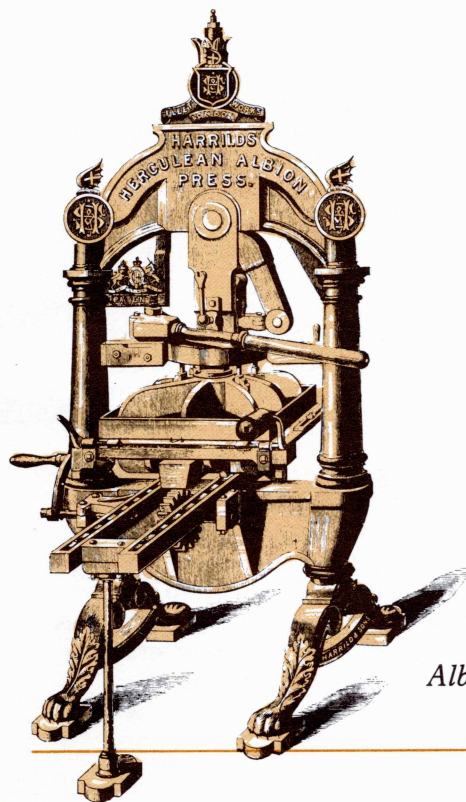
M. J. TELFORD begs to intimate, that he has on Sale, at his House, at the east end of the Beach, an assortment of Hardware of the first quality.
Port Nicholson, 16th April, 1840.

Many early sailing ships brought a printer with his plant and press.

New Zealand's first newspaper—the New Zealand Gazette.



The Press



Albion Press.

Immigrants of the early 1840s came to New Zealand in search of a more democratic way of life than that which existed in England at that time.

Newspapers were democracy's first tool, and many early sailing ships brought a printer with his plant and press. However, due to economic and other factors, many early newspapers were short lived.

In the early 1840s, Government relied on newspaper offices to print its work, while newspaper proprietors depended on Government work for survival. The Government policy on land claims provoked settlers into fierce criticism, and the Government silenced this by closing down rebellious newspapers.

The New Zealand Advertiser and Bay of Islands Gazette was first printed by Geoffrey Eager in June 1840, at Kororareka. Eager criticised the Government, and his paper ceased when the Government invoked a relevant New South Wales law.

Colenso then printed the *Gazette Extraordinary No. 1* for the Government on his Paihia press. Soon afterwards, the seat of Government was moved to Auckland.

In Sydney, John Moore replied to the Government's advertisement for a printer. On arrival, he sold his press and plant to the owners of the *New Zealand Herald and Auckland Gazette* (not related to the present *New Zealand Herald*), and printed both the *Herald* and the *Government Gazette*. Eager moved to Auckland, where he founded the *Auckland Chronicle*, a rival newspaper. Tensions between the 2 men escalated, and at the end of 1841, Moore was fined in Court for assaulting his rival.

When Moore also criticised the Government, the plant and press which he had sold to the *Herald*, were purchased by the Government. Until his contract expired, Moore printed the *Gazette* and a few issues of his own newspaper, the *Auckland Standard*.

The saga of conflict with the Government continued with the printing of the *Auckland*

Times by Henry Falwasser. This newspaper began in August 1842. When Falwasser criticised the Government he, too, was denied the use of its press. Undeterred, Falwasser used a household mangle, and a heterogeneous collection of type. Capitals, italics, and Old English sometimes appeared in the same word, and "afforded great amusement and [it] doubtless had a good circulation as it lashed out to the complete satisfaction of the public."⁹ Falwasser died in 1846.

The first Auckland newspaper to survive for any length of time was the *Southern Cross*. Begun in 1843, this was incorporated into the *New Zealand Herald* in 1876.

With the beginnings of organised colonisation, printing spread to the coastal settlements of the various colonising companies. The presses were mainly Albions or Eagles. For 1 day a week, 100 to 200 copies of a newspaper might be printed, this work being supplemented by job-printing. Advertisements provided added income.

New Zealand's first newspaper was the *New Zealand Gazette and Britannia Spectator* (later, "Wellington" was substituted for "Britannia"). Samuel Revans, New Zealand's first editor and newspaper proprietor, was the "Father of the New Zealand Press". He had come out on the New Zealand Company's ship the *Adelaide*, and his venture was backed with "financial guarantees and other forms of [Company] support".¹⁰ Revans installed his Columbian press in a prefabricated house on Petone Beach, Wellington, and on 18 April 1840 he published the second issue of the *Spectator* (the first had been printed in London).

Revans criticised the Government in his newspaper, and was far enough removed to be able to do so with relative impunity. Revans "believed the New Zealand Company should be supported",¹¹ and no criticism appeared in his paper.

His interest declined however, and in 1844 Revans surrendered direct control of his newspaper.

Printing was established in Nelson in 1842 by Charles Elliott who, with the assistance of a loan from the New Zealand Company, founded the *Nelson Examiner*. Although Elliott was accused of partiality resulting from his financial dependence, he ran his paper with great integrity, and his was one of the few newspapers to give impartial reports on the Maori Wars.

Canterbury was founded a decade later than Nelson. The *Lyttelton Times* began in January 1851, and James Fitzgerald was its editor in the beginning. The *Times* did not print criticisms of the Company.

The *Taranaki Herald* was founded in 1852, some 10 years after colonisation began in New Plymouth. It was first printed weekly, then twice-weekly, before becoming a daily, and is New Zealand's oldest surviving newspaper, but not the oldest surviving daily newspaper. This distinction belongs to the *Otago Daily Times*.

Otago's first newspaper, the *Otago News*, began in 1848 as a commercial operation. Its

motto "There's Pippins and Cheese to Come" implied a somewhat misplaced faith in its future, as it folded in 1850.

Early newspaper production was hampered by a shortage of supplies. Sailing ships took several months to arrive, and shipwrecks took their toll. The *Nelson Examiner* once had to advertise in its columns for treacle.

"... Rollers are the instruments used for the purpose of inking the formes, and an essential ingredient in the construction of them is treacle, ... If any of our readers have any of this important article ... we shall be infinitely obliged to them."¹² This was obviously forthcoming, as publication continued without interruption. At other times, paper shortages necessitated tea paper being used. The *New Zealand Spectator and Cook Strait Guardian* (which replaced Revans' *Gazette*) appeared on "red blotting paper ... and specimens are extant printed on green and blue."¹³

Local news needed to be presented in an interesting way. Editors of those frontier

townships would report their own article, set it up in type, then write their own scathing editorial.

Overseas news was obtained orally from travellers or ships' captains. The *Wellington Independent*, founded by 5 printers as the result of an industrial dispute, tried to obtain a monopoly on overseas news. It maintained its own rowing boats and crews in readiness to meet arriving ships. On the arrival of the ship "the owner, manager, editor, reporter, and printer all rolled into one would ... put off in a boat ... for the Heads to intercept a vessel coming in. Once on board, he bought up every newspaper in the ship, going as high as £1 for a single copy on important occasions."¹⁴

Later, when mail steamers began to arrive in Auckland, Waterman's boats raced reporters to visiting liners to procure "mail-packets", to the great "interest and excitement" of spectators.¹⁵

Pigeon Post was a method of delivery used by the *Auckland Star* from about 1870, and by

The Press of Christchurch from 1886. Some homing pigeons were used for the speedy delivery of race results from the Riccarton Race Course. The use of pigeons ceased when telephones became accessible in the 1920s.

Cartoonists have played an important part in newspaper development, providing humorous insights into political and other events.

Newspapers aired personal conflicts, and sometimes "savage scurrility supplied the place of wit." However, standards of journalism gradually improved. Journalists traditionally had "more sympathy with the masses than the classes", and editors such as E. T. Gillon were fierce upholders of principle, even in Court. Many newspaper men made major contributions in political and other areas of New Zealand's history.

Summary justice was sometimes sought for infuriating statements. In 1865, in Auckland, the Navy sought retraction of a slander

printed by the *New Zealander* concerning Hone Heke's war. Some sailors passed a hawser through the printing office and over the roof in readiness to overturn the building as a reprisal. (A retraction was speedily given.)

An interesting event in Maori history was the presentation of a printing press to two Maori chiefs, Wiremu Toetoe and Hemara Rerehau, by the Emperor Franz Josef of Austria. These chiefs had travelled to that country on the *Novara*. During their 9-months' stay, they received tuition in printing at the Imperial Printing House in Vienna.

In 1861 at Ngaruawahia, Patara te Tuhi, a cousin of King Potatau, edited the newspaper *Te Hokioi* and this was printed on the press which the Emperor had given. When this newspaper berated the Government, John Gorst, a government advisor in the Waikato, responded by printing the paper *Te Pihoihoi*. This was so inflammatory that the Maoris carried off the press. This event contributed to the igniting of the Waikato War.

Te Waka Maori was produced by the Government from the start of the war, replacing *Te Karere*, the Maori messenger. Over the years a number of independently owned papers in Maori appeared. By 1900 there were 29 periodicals being printed, and 5 of these were owned by Maoris.

In 1898, a predominantly religious newspaper, *He Kupu Whakamarama*, was started by Bishop F. A. Bennett at Nelson. This was continued at the Te Rau Press at Gisborne until 1913, as *Te Pīpīwharauroa*—The Shining Cuckoo. The scholarly paper *Te Ao Hou*—The New World—was founded in 1952. It was superseded by *Tu Kaea* (published by the Department of Maori Affairs) and *Te Maori* (published by the New Zealand Maori Council). These papers amalgamated as *Te Tangata*—Stand Tall—in 1981.

From the 1860s it was possible for many newspapers to survive, as a result of the gold rushes which brought prosperity to New Zealand. Julius Vogel was drawn to New

Zealand by the discovery of gold, and in 1861 founded the *Otago Daily Times*. Unlike other early newspapers, this paper was a daily from the beginning, and is New Zealand's oldest daily newspaper.

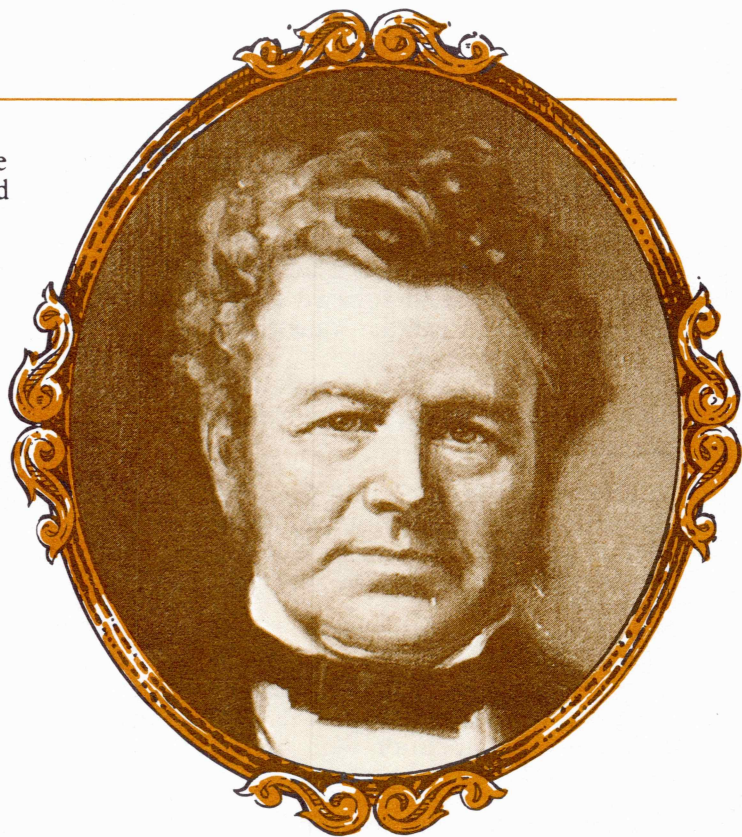
The gold rushes brought 78 000 people to Central Otago in 1863. E. T. Gillon went to report on the diggings at Tuapeka, and endured a "terrible winter" there. In that volatile climate "rumour and wild report" could send huge crowds to remote places, where lack of food or heavy snowfalls could spell disaster. The *Times* reported events carefully and sounded appropriate warnings. The continuing excitement tempted the *Times'* compositors to leave, and a 50 percent wage increase was barely sufficient to dissuade them.

Vogel's political views led to a rift with the management. Later, he entered fully into political life, and became Prime Minister. George Fenwick, who had been employed with the *Times* since 1861, later became Managing Editor.

Albions were transported by packhorses to the goldfields, and many newspapers mushroomed in that era. In rugged Westland, colonisation had at last begun. Greymouth's first newspaper, the *Grey River Argus*, was founded in 1865 in a calico tent. It later came under trade union control. The *Greymouth Evening Star*, begun in 1866, is still surviving.

City newspapers were training grounds for printers, who often dreamed of owning their own country papers. Gradually political, religious, sporting, ethnic, and other papers appeared, reflecting developments taking place in their areas. In Wanganui, in the late 1880s, a women's paper of "serious and educating character" was not expected to receive sufficient support to survive.

Some newspapers were run as family enterprises. The *Evening Post* was founded in 1865 by Dubliner Henry Blundell. Two of his sons worked at the frames, and a third was canvasser and reporter. The *Dominion* is one of the few leading newspapers not established before 1870. Its founding was in



Henry Blundell.

1907, the year of New Zealand's constitution as a Dominion.

In 1964 the Wellington Publishing Company's *Dominion* was under pressure of takeover by the London-based Lord Thomson group, and the Australian newspaper proprietor, Rupert Murdoch. The News Media Ownership Act was passed in 1965 to limit the extent of control by overseas interests.

In times of crisis, such as during the wars, and in the Napier earthquake, while operating under tremendous difficulties, newspapers kept the public well informed.

New Zealand's fiercest newspaper war began during World War I, when an Australian named Edward Huie founded the first of 2 independent *Sun* newspapers in Christchurch. This was in competition with the established Christchurch papers.

The new modern image of the paper appealed, and a few years later Huie set up a second *Sun* in Auckland. Cecil Leys of the

Auckland Star strengthened the position of the endangered papers by taking over the Lyttelton Times Company. Later Leys and the Herald's proprietors bought out the Auckland *Sun*. The Christchurch *Sun* also folded, partly as a result of the 1929-34 depression. In the 1930s, 48 other New Zealand newspapers also ceased to operate.

Weeklies were extensions of the dailies. The isolation of rural communities made these popular, and by the end of the nineteenth century, 22 weekly newspapers were being produced for country readers. Amongst these were the long-running *Auckland Weekly News*, the *New Zealand Free Lance*, Christchurch's *Weekly Press*, and the *Otago Witness*. The *New Zealand Woman's Weekly* began in 1932, and the *Listener*, which for many years had exclusive radio programme rights, began in 1939.

In the halcyon period just prior to World War I, the scope and pace of newspaper production increased. There were no radios, and newspapers were the sole means of communication. There were notes on

farming, fishing, and gardening, notes for women on baby care and cookery, and "Our Literary Corner", appearing on Saturdays, gave encouragement to writers. In December 1907, Katherine Mansfield contributed a story, of which no trace remains, to Tom Mills' *Feilding Star*. In the 1930s, early poetry by Janet Frame appeared in "Dot's Little Folk" of the *Otago Daily Times* and in the *Oamaru Mail*.

Recent Mergers

During the last 40 years, private ownership has almost disappeared, and has been replaced by corporate ownership.

The *New Zealand Herald*, founded in 1863, is published by Wilson and Horton. This firm has recently purchased the assets of United Publishing and Printing. These assets include the *Daily Post*, Rotorua, the *Wanganui Herald*, the *Wanganui Chronicle*, and the *Levin Chronicle*. Independent Newspapers publish many major metropolitan and suburban newspapers, including the *Evening*

Post, the *Dominion*, the *Waikato Times*, the *Evening Standard* (Palmerston North), the *Timaru Herald*, the *Southland Times*, the *New Zealand Times*, the *Sunday News*, *Truth*, and numerous suburban newspapers. New Zealand News publishes the *Auckland Star*, the *Christchurch Star*, the *Taranaki Herald*, the *Taranaki Daily News*, the *Napier Daily Telegraph*, the *Hawke's Bay Herald-Tribune*, and the *Oamaru Mail*. The 2 major independent newspaper companies in the South Island are the Christchurch Press, which publishes the *Press*, and Allied Press, which publishes the *Otago Daily Times*.

Sunday journalism commenced in 1957 with the *Sunday Feature News*, but of the Sunday papers existing today the first was the *Sunday News*, which began in 1963.

A feature of recent years has been the development of community newspapers, of which there are at least 80 in New Zealand. Many are owned by the big publishing groups, but many others are independently owned by printers and journalists. Most are issued free to householders.

ECCLES' PHOSPHOR-TON

THE GREAT NERVE TONIC.

FEW people in the course of life, and particularly in times such as we are now living, who do not experience that stage of depression or run-down feeling. The amazing power of **ECCLES' PHOSPHOR-TON** to build up nerve force and general tone to the system has been proven by thousands of men, women, and children. There is no better remedy for lowered vitality or weakened nerve force than **ECCLES' PHOSPHOR-TON**. You feel its influence from the first dose. **TRY IT NOW.**

Sole Proprietor—A. ECCLES, Chemist and Pharmacist,
H.M. ARCADE, 171 QUEEN STREET, AUCKLAND.
BRANCHES—ELLISON CHAMBERS, HOBSON STREET AND DEVONPORT.

Price --2/6, 4 6, 6/6
per bottle.

Posted anywhere in New Zealand, 6d extra.

2/6 bottle contains 32 doses;

4/6 bottle, 64 doses;

6/6 bottle, 128 doses.



"Here it is
Mother!"

He Knew!!



"Now, my son, you are making a start in life with a good education and money in your pocket, just as I did many years ago."

"Yes, Dad."

"In three years I had accumulated over £3,000 of book debts, but had run through all my cash, and was faced with a terrible crash."

"Yes, Dad."

"What would you do if placed in a similar position?"

"Why, come to you for more, of course!"

"Ha, Ha! No you don't, you young rascal. Make out a list of your accounts, and 'Give it to Roope Bros., as I did, and you will be on your feet again in no time."

"What, the Roope Rooster people?"

"Yes, my boy, they have something to crow over. They pulled your old dad out of the fire, and many another has to thank their modern methods for the position they occupy to-day."

"Give it to **ROOPE BROS.**"
14 & 15 His Majesty's Arcade, Auckland.

Advertisements appearing in
Auckland Weekly News, 1917.

General Printing

With the expansion of colonial settlement, the scope for commercial printing enlarged as the townships grew in size. As prosperity increased, job-printers began to function independently from, and sometimes in competition with, newspapers.

Amongst the early printers in Auckland in the mid nineteenth century was William Atkin, the Anglican printer who had taken over the printing at the St John's College Press.

In the 1850s, the firm of Williamson and Wilson held a virtual monopoly on printing in Auckland, and were also printers for the *Gazette*. From 1856 till 1863 W. C. Wilson was sole proprietor. Creighton and Scales, proprietors of the *Southern Cross*, Auckland's first daily newspaper, undertook in 1863 the first printing of the colonial classic, *Old New Zealand*. This firm was successful tenderer for the printing of the *Gazette* after Williamson and Wilson ceased to do so.

In 1873, Alfred Horton, founder of the *Timaru Herald*, entered into partnership with Wilson, and this firm continued to print the *New Zealand Herald*. With the rival firm of Brett (for a while Reed and Brett) of the *Auckland Star*, they continued to "handle the bulk of Auckland books and periodicals until well into the present century; this, despite the fact that directories of the early 1880s list no fewer than 24 Auckland printing houses".¹⁶ (The advent of linotype machines, with their cheaper and more efficient methods of typesetting, was to bring a proliferation of printing houses throughout New Zealand.)

Brett himself was an author of books, including historical works on New Zealand edited by Thomson W. Leys, who had entered into a "brilliant literary" partnership with Brett.

By the 1860s the business world required a wide variety of printed material, and in Wellington, in 1865, several commercial printing houses existed independently of newspapers. In Dunedin about this time, 2

firms advertised that amongst other services, they would “engrave plates for invoice and account tops, acceptance forms, blank cheques, drafts and bills of lading . . . [and] as formal social life became established, theatre programmes, visiting cards, and invitations and other ephemera”¹⁷ were produced.

One of these firms probably belonged to Henry Wise. At the height of the Otago gold rushes, he set up a seemingly sizeable business as an account book manufacturer, engraver, printer, and stationer. Wise’s first Dunedin *Directory* appeared in 1865, and these continued to be printed annually until 1870, when he sold his printing business to Matthews and Baxter, in order to concentrate on his *New Zealand Directories*.

George Whitcombe established a book-selling business in Christchurch in the early 1870s, and in 1882 was joined by H. H. Tombs. The firm became large even by world standards. An important aspect of this firm’s printing was that of educational books. A review in the 1880s enthused that the locally produced

books would “provide public schools of New Zealand reading lessons that will stand in more direct relation to life and its surroundings in our own land than the lessons of foreign ‘readers’ can do.”¹⁸

A series of textbooks on subjects such as reading, writing, English, geography, history, arithmetic and botany, were written by leading teachers. At that time, numerous New Zealand writers were having books printed by commercial printers. Whitcombe’s book publishing expanded into the areas of fiction, biography, Maori legends, and the famous *Story Book* series, until the firm became the largest firm of book printers and publishers in New Zealand. By the 1940s over 50 million books had been produced. The exporting of school books to Australia also became a huge enterprise. Other work included the printing of music, and box and carton manufacture.

The Reed publishing house commenced as a religious material mail-order supply firm in Dunedin in 1907, and grew to be one of New Zealand’s major book publishers.

Some printers became agents for overseas manufacturers of printing requirements, and were sometimes warehousemen; while some were sellers of books and magazines. Lending libraries of imported books on a wide range of topics were sometimes set up, although missing books could render this unprofitable.

Advertisements were an important source of revenue. A large part of a commercial printer's day was dedicated to the preparation of advertising material. Typeface designs from designers such as Caslon, were displayed in specimen books, and there was a bewildering variety of ornamental designs in type, flowers, corners, borders, etc., from which to choose.

Advertisements could be made more explicit by the use of illustrations (e.g., sailing ships, trains or bullocks) printed from stock cuts, which could be bought from English typefounders.

Illustrations from wood engravings made printed material more attractive. In 1865, chromo-lithography was introduced to New

Zealand, with excellent work being produced by two Christchurch men. The Heliotype process was first used for colour printing, from a negative in 1890. Halftones and the 4-colour process were being made viable in the graphic arts industry towards the end of the nineteenth century; while photogravure was the system of reproduction first used by Coulls, Somerville and Wilkie in Dunedin in 1914. The general use of halftone was followed by natural colour photography, and this had limitless possibilities.

Offset was first used commercially by Wilson and Horton in 1914, using a L & M Miehle machine.

Since the early 1930s, much progress in secondary industries (e.g., biscuit and confectionery production) had been made, and the offset process was used for advertising on packaging.

It was also used for weekly illustrated papers, which were among the first items to be printed by offset.

LOVE POEMS
Anton Vogt



THE CAXTON PRESS
CHRISTCHURCH
1952

The Rime of the
Ancient Mariner
S. T. COLERIDGE



THE CAXTON PRESS
CHRISTCHURCH
1952

Below: A page from a book
printed by the Pegasus
Press in 1952.



IT WAS AFTER THE invention and adoption of printing from movable types, about 1450, that the wood cut was used extensively for pictorial and decorative embellishments of printed works. Some of the wood cuts of that period were crude but it must be remembered that the woodcutter, or *forachneider* as he was called, worked on the side grain of wood with knives, gouges and chisels. This working on the side grain had its limitations but it was not until the eighteenth century, when experiments were made on end grain wood with engraving tools, that engraving began to supersede the wood cut. Thomas Bewick was outstanding as one of the earliest to design and engrave his own blocks using the newer form of engraving. However, the combination of artist-engraver was almost completely overlooked by other artists, and the technique of white line engraving on end grain boxwood was mainly carried on by professional engravers.

In publications of the past century we see from the examples of the professional engravers' work that they developed remarkable skill in reproducing various techniques imposed upon them by artists. In many cases the engravers were forced to reproduce effects which would have been more appropriately done by copperplate engraving. It was partly due to this exploitation of the wood block, before the invention of photographic process engraving, that wood engraving as a creative art fell into neglect.

Above: Title pages from books
published by The Caxton Press.

Fine Printing

While some printing in nineteenth century New Zealand reflected a sure knowledge of the craft, the design content of printing in general reached a low ebb. Typography generally reflected the decline which had begun in England in the 1830s.

Standards were further debased by the widespread use of elaborate and ornate typefaces during the latter part of the Victorian era. Extravagances conceived by type-cutters overseas imbued New Zealand literature of that period with an added banality.

The noted type-reviewer Robert Coupland Harding worked hard to improve design standards. Young Harding had worked as an apprentice on the *Hawke's Bay Times*, which his father, T. B. Harding, had bought in 1865. Harding senior imbued his son with a deep appreciation of typography, and over the years young Harding combined printing and newspaper work with his scholarly and aesthetic studies of typography.

As William Morris attempted to reform design standards in England during the 1890s, Harding influenced contemporary thought through the publication of his journal *Typo*. Extensive correspondence from typographers overseas, and from Colenso in New Zealand, provide insights into the esoteric world of specialist printing. Alexander Turnbull's collecting of works from English private presses also promoted an enthusiasm amongst New Zealand book collectors for work of good design.

Another factor in the return to simplicity was the advent of linotype machines, when type designs became frozen, limiting the input of human creativity.

New Zealand's typographical renaissance took place in the early 1930s.

The "credit must go to R. W. Lowry, who at Auckland Grammar School discovered a master, Gerry Lee, with a handpress and a collection of old type faces. Fired with enthusiasm and possessed of an instinctive

flair for bold and masterly use of type, Lowry found himself at the university in the midst of an upsurge of creative writing . . .”¹⁹

In 1934 Lowry founded the Unicorn Press, and was joined in this project by Ron Holloway, founder of the Griffin Press. In 1946, he established the Pelorus Press, and 7 years later, the Pilgrim Press.

Lowry’s enthusiasm sparked the founding of the Caxton Club by Denis Glover and a few enthusiasts at Canterbury University in 1932. The main item of equipment was a Kelsey hand platen press and this was used for producing the magazine *Ori Flamme*, the sole issue of which caused a furore. Another magazine, *Sirocco*, and a few booklets followed. Later, Glover founded the Caxton Press—in a disused stable in Christchurch—and supplemented book publishing with job printing.

Leo Bensemann joined the group, and *Fantastica*, a book of drawings, was printed. However, according to one critic, the “most

important publication of the [Caxton] Press was commenced in 1940 when the first of the Monte Holcroft [booklength] essays ‘The Deepening Stream’ was published. . . .”²⁰ Four other “worthy successors” also appeared.

Caxton printed work by writers of the calibre of Ursula Bethell, Baxter, Curnow, Fairburn, Mason, and Sargeson. Some books were illustrated with Mervyn Taylor’s wood engravings. In 1940, the publication of some prestigious books celebrated New Zealand’s Centenary—

“The happy conjunction of J. C. Beaglehole . . . [and] Joseph Heenan (later Sir Joseph), Secretary for Internal Affairs, produced the Centennial Survey series, and several other notable books either through the Government Printer or Whitcombe and Tombs Ltd. . . . As an amateur learning much as he went along, Beaglehole considered carefully each detail of “style” and composition. Both the Government Printer and Whitcombe’s have magnificent plant, and can produce magnificent results.”²¹

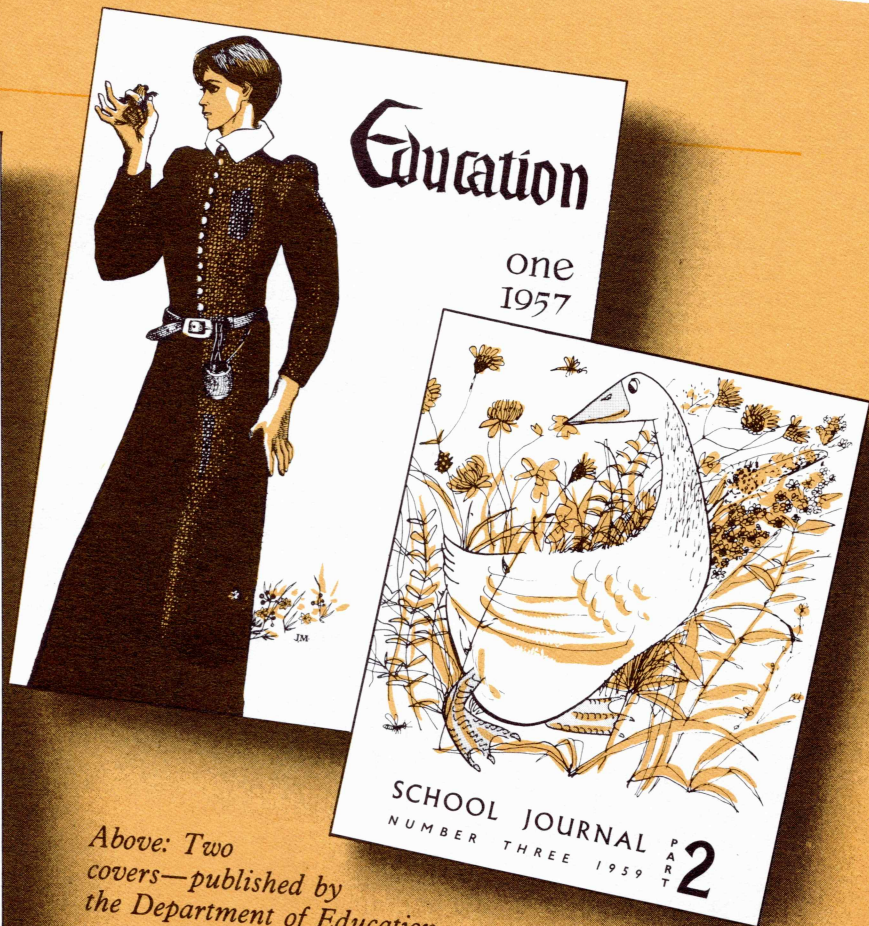
Below: A page from The Caxton Press type specimen book, 1948.



THOSE who know my compositions say 'Play me your second Sigh—I like your Bells very much.' And every observation finishes with 'leik water', meaning that my music flows like water. I have not yet played to any English-woman without her saying to me 'leik water' !!! They all look at their hands and play the wrong notes with much feeling. Eccentric folk, God help them.

CHOPIN
letter to Wojciech Grzymala
1848

15



Above: Two covers—published by the Department of Education.

Some of these results can be seen in work produced by the Government Printing Office for the Department of Education. An instance of this is the *School Journals*. These received high praise at a Unesco exhibition of educational books held in Wellington in 1960. At another International Book Fair, this time in London, 5 of the 11 New Zealand books on display had been produced by the Government Printing Office.

The Pegasus Press has also shown meticulous attention to detail and has an imaginative approach to book jacket design and "prelims".

Some private presses were concerned more with textual than design content. The Colenso Press was set up by Eugene Grayland in Hawke's Bay in the 1930s mainly for printing his own histories. At this time Noel Farr Hoggard of Pukerua Bay, Wellington, began printing on a hand-fed treadle platen, the long-running literary journal *Arena*, through which Hoggard encouraged many promising writers.

The Nag's Head Press, started by R. S. Gormack, of Christchurch, was distinguished by its use of restrained typography, and "provided a good model for other New Zealand amateur printers."²²

The Wai-te-ata Press was set up at Victoria University of Wellington in 1962 by D. F. McKenzie, for the study of bibliographical work by his English students.

Through McKenzie's close association with Cambridge University, a Stanhope press was made available, and this is in use at Wai-te-ata. A wide range of types, specimen books, and other equipment no longer needed, was acquired from printing offices.

The Wai-te-ata Press has published a great many books of poems by New Zealand poets, and 4 issues of *Words: Wai-te-ata Studies in Literature*. Under the direction of Douglas Lilburn and Jack Body, it has also published over 40 scores of music by New Zealand composers.

Another significant press is the Hawk Press, founded by Alan Loney at Taylor's Mistake in Christchurch, initially for publishing his own poetry. Although self-taught, Loney successfully produced more than 20 books. His philosophy was to achieve a standard of fine printing comparable to those set by craftsmen overseas, and for some work he used the old method of printing on dampened paper, on his Albion press.²³

Other presses have been set up in New Zealand for bibliographic studies in various institutions. Presses of note include the Mount Pleasant Press in Auckland, and the press operated in Dunedin at the Bibliographic Room by Keith Maslen and his students.

In the late 1950s, Auckland University received a historic press for bibliographic purposes from the Government Printer, Roy Owen. The press which had been used for printing *Te Pihohoi* was given to the Alexander Turnbull Library.

In many parts of the world, Printers' Craftsmens' Clubs have been established. Their main purpose has been the familiarisation of new techniques in an age of specialisation. In New Zealand, under the editorship of R. A. MacKay, and with the assistance of members of the Wellington Club of Printing House Craftsmen, the *History of Printing in New Zealand* was produced. A. A. Smith's *Printing in Canterbury*, was published under the auspices of the Christchurch Club of Printing House Craftsmen.



The Government Printing Office

The first official printing had been carried out as early as 1835, and with the Proclamation of New Zealand as a British Colony, Colenso was involved in further printing. (Eager and Moore were successive printers of the Government's *Gazette*.)

On 1 October 1842, the Government Press was established. Between 1842-43, Philip Kunst appears to have been Managing Printer, and was apparently succeeded by the compositor Christopher Fulton, who was made official Government Printer in September 1844. In 1846, the Printing Office was closed down, the Government having expended its resources on wars against the Maoris. John Williamson, who had founded the *New Zealander*, succeeded in tendering for the Government's work. Strict conditions were imposed, including a £20 fine for any breach of confidentiality.

Williamson was joined by W. C. Wilson, and their firm continued the printing of the *New Zealand Government Gazette*, which

*Government Printing Office
Building, Lambton Quay, c. 1907.*

Williamson had begun, for the North Island. The *Gazette* for the South Island was printed in the Wellington offices of the *Spectator* and the *Wellington Independent* alternately.

The firm also printed *Te Karere*, or the *Maori Messenger*, in English and Maori, which informed the Maoris on Government policy and actions.

One major difficulty Wilson experienced was the necessity for keeping huge quantities of type locked up, perhaps for months, while the passage of bills was debated in the House.

There were many advantages in having a Government press, e.g., the daily printing of *Hansard* when the House was in session, and the printing of statistics, census forms, etc., during recess.

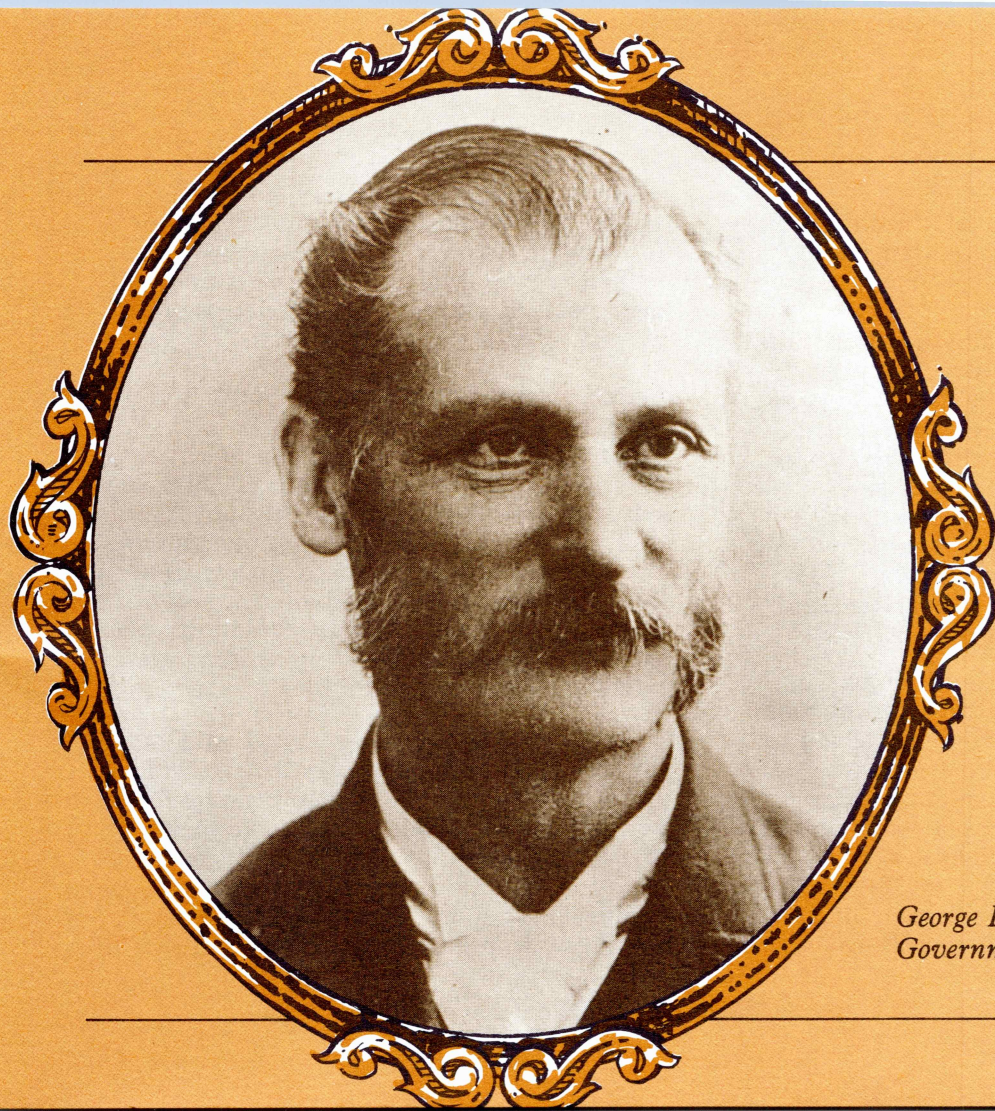
In 1864 the Government Printing Office was finally established, and in May, 2 men already employed on Government printing, Joseph Wilson (son of W. C. Wilson) and George Didsbury, were selected as Government

Printer and overseer respectively. (In 1865 George Didsbury succeeded Joseph Wilson as Government Printer at the age of 26 and held this post until he died at the age of 56 in 1893.)

Operations began in two rooms in the basement of the Lyceum Building in Alten Road, Auckland, with an initial staff of 12. The pressroom had no floor, and windows were broken.

In 1865 the seat of Government was moved to Wellington. Wilson resigned to work on the *Herald*, and Didsbury became Government Printer. The Government's plant and 5 presses were loaded onto the *Ladybird*. The staff sailed with it, arriving in Wellington in March 1865.

Didsbury rented 2 rooms in a wooden building on the sea-frontage of Lambton Quay. The building was said to have been Barrett's old hotel, and was on the future site of the Hotel Cecil (about 300 metres from the present Government Printing Office in



*George Didsbury,
Government Printer, 1865-1893.*

Mulgrave Street). Water seeped through from springs in a clay bank, causing damage to stationery.

Under Didsbury's capable administration, the staff responded. In 1867 stamp printing began. Sixty different values, from one penny to £10, were initially printed, and fugitive inks used for security. In 1870, a Stereotype and Electrolyte Branch was established; while photolithography was commenced in 1873. The Bindery Branch was also established that year. Women were employed, and by 1880 they numbered 18, carefully supervised and segregated from the male staff.

With increasing legislation and the growing activity of government departments, the work began to flood in. A new wing was added to the wooden building, the "first of many makeshift additions that have marked the long career of the Government Printing and Stationery Store."²⁴ New plant was purchased; in 1866 and again in 1868, a double-crown Belle Sauvage capable of 1100 impressions an hour. In 1868, Didsbury

engaged 15 piecework compositors for the printing of *Hansard*. That year there was sufficient type to print all the bills that had been passed, and therefore no necessity existed to engage outside printers.

Printed material included the Statutes of 1867, the House's and Legislative Department's *Journals*, the *Appendix to the Journals*, and other publications, regulations, statistics, standing orders on private bills, a catalogue of the General Assembly Library, a *Handy Book for Coroners*, sociological reports, laws for steam vessels, harbour and quarantine regulations, and regulations for the armed constabulary. Printed items were offered for sale to the public.

There were difficulties associated with the printing of the *New Zealand Parliamentary Debates (Hansard)*. Some members, perhaps with an eye to posterity, wished to make extensive changes to their printed speeches. This "unlimited licence" and lack of "editorial supervision" was condemned by Didsbury, who himself was also chastised for

printing delays. There was insufficient room, and the closely co-ordinated reporting and typesetting of speeches was made possible by the compositors working at night.

Didsbury was responsible for the general management of the office and staff, clerical and accounting tasks, receiving and preparing orders, preparing estimates, instructing the overseer, looking after salaries and stationery, and supervising the addressing and posting of the *Gazette*. In 12 months during 1868-69, he needed to answer, unaided, more than 700 letters.

During the depression of the 1880s, economies were inevitable. There was great hardship. Measures such as dismissal had to be taken, and some men went to Melbourne in search of work.

At the end of 1880, the printing office at Lyttelton jail, where prisoners were trained in the printing of material for the Railways and other departments, was placed under the control of the Government Printer.

Within 5 years some 53 prisoners received training in some aspect of printing to assist them when discharged. (In the 1950s this concept was also put into practice at Mount Crawford Prison in Wellington.)

In 1883, electric light was installed, bringing with it less eye strain and cleaner air. At this time, moves were afoot to build new premises, and land was being reclaimed from the sea for this purpose. Progress on the enormous new building was "watched with interest from the rat-infested warren across the road".²⁵ The building was of brick bearing-wall construction and was designed with fire, but not earthquake resistance in mind. In 1890 the old building burnt down, with a loss of books by George Grey and John White, and quantities of records.

Some highlights of production which occurred before the turn of the century were the printing of 1½ million telegraph forms in 1870; in 1881 a similar number of railway tickets, to serve 470 railway stations; and in 1890 the printing of some 37 500 000 stamps.

Printed material was delivered by horsedrawn express, and in the early 1900s, 14 teenage messenger boys were employed.

Prior to World War I, the Government Printer, John MacKay, instituted a policy of purchasing new machinery, rather than maintaining worn equipment. In this period of national prosperity, staff and production levels soared. At this time young people made their own amusements. When the overseer was at lunch, they would gather from the various departments to dance to the music of an accordian or mouth organ.

During the war, many employees left for overseas, and long hours of overtime were worked by those who remained. Conscription was in force, and much painstaking work was required in the printing of ballots of names. Paper was extremely scarce, and major economies were made in the paring of printed matter.

The outbreak of World War II saw the Government Printing Office in a state of

preparedness. Emergency regulations were already set up in type, and by early September 1939, the *War Book* was in operation. Preparatory work such as this assisted the promptness with which the war machine was set in motion. The printing of ration and petrol books, training manuals, pay and log books, war equipment tables, embarkation rolls, targets, maps, etc., was efficiently achieved.

The value of the camera in printing during the Second World War was widely recognised, with offset lithography being used extensively overseas. In 1950, the work of the Lands and Survey and the Armed Services Mapping Committee were serviced by the Photolitho and Process Engraving Branch. The Offset Branch became New Zealand's largest and best-equipped.

In 1955, Cabinet approved the planning of the present Government Printing Office. In the mid 1950s, apart from branches in Petone and Lower Hutt, many other premises in

Wellington were acquired in a policy of planned decentralisation.

In 1966, the new Government Printing Office in Mulgrave Street, which commemorated 100 years of service, was completed. It comprises 5 floors and a basement, in an area of 15 000 square metres, and cost over £1,000,000.

Book publishing is now a separate activity of the Government Printing Office operations. In the 1950s a sales drive resulted in Government publications becoming more widely known. As a result, publishing is now a thriving business and the Government Printing Office is one of the largest publishers in New Zealand.

Books and pamphlets printed by the Government Printing Office are listed in the *New Zealand National Bibliography*. The retrospective national bibliography, which was compiled over a period of 40 years, was edited by A. G. Bagnall, and the fifth and final volume (an index volume), was published in 1985.

*New Zealand
Paper Mills Limited.
Mataura, 1984.*



Allied Trades

The Mataura Paper Mills were established in 1875. Bags, rope, flax, rags, jute, wood pulp, and old books and paper were the materials used for paper making. These were chopped up and boiled with caustic soda in rotary boilers. This passed through beating machines for pulping and colouring; then, as a liquid, into the paper-making machines, to emerge from the drying cylinders as huge rolls of paper. Wrapping paper was also produced in Dunedin about this time.

In the early 1890s the driving of the machines depended on a "steady rush of water over falls".²⁶ This action drove two turbines (50 hp and 250 hp), and the process was supplemented by steam for drying and boiling.

During the greater part of the nineteenth century, many items needed for the operation of printing presses were imported, and these had to be ordered many months in advance. Coal came from Newcastle; parchment, twine, glue, brushes, etc., came from

England. From the late nineteenth century, type, ink, etc., could be ordered from the Australian firm of F. T. Wimble, instead of ordering direct from England.

Gradually, New Zealand began producing its own commodities. Greymouth supplied coal, Wellington made candles, Lower Hutt produced brushes and brooms, Porirua made glue, and parchment came from Blenheim.²⁷ Monotype Supercasters were used by the firm of Morrison and Morrison for casting type for the trade, and printers sent old type to be recast. During World War I this firm began production of a range of inks.²⁸ Later, F. T. Wimble also became manufacturers of ink in New Zealand.

Collins Bros began manufacturing stationery in the 1870s, and were later followed by firms such as Alex Cowan, John Dickinson, and Williamson Jeffrey.

Composing Room, c. 1900.



The Printing Trade Unions

Instances of Industrial Unrest

The Chapel*, a printers' shop floor organisation, provides workers with the opportunity to air grievances, and is a form of house union. In the nineteenth century, conditions were often injurious to health, but unions were not sufficiently organised to be able to effect improvements. There was a high incidence of lead poisoning and tuberculosis, and danger in unguarded cutting and other machinery. Long hours induced fatigue.

In 1866, a strike of some 30 typesetters took place in the Government Printing Office in Wellington over the rates of pay for pieceworkers, for the printing of *Hansard*. In Otago and Westland, these compositors earned 3 or 4 times more than the Government's tradesmen, who in 1862 received £3 for a 60-hour week.

Negotiations were supported by the Wellington Typographical Association, which had been formed in 1862, and resulted in a

small increase. With the exception of the Father of the Chapel, and two others, the strikers were reinstated.

The Association lapsed, but continuing dissatisfaction led to a renewed effort towards unionism with the printing in 1873 of an extensive book of rules and regulations.

This book defined workers' responsibilities and standards of conduct. In one area:

*"... any member of Chapel guilty of swearing, obscenity or quarreling will be ... subject to a fine of 2s 6d. If of fighting or assault, 5s ... when a vacancy occurs, any member refusing to take office after having been duly elected ... shall be fined 2s 6d."*²⁹

*The term "Chapel" is derived from William Caxton's use of a chapel in Westminster Abbey for his early printing in 1471.

A severe depression in the 1880s caused widespread unemployment, and with it came much industrial upheaval. In May 1886 serious conflict took place between the

management of the *Otago Daily Times*, under George Fenwick, and the compositors. The compositors were faced with a 10 percent wage reduction. These men, who were already working a 70-hour week, were not disposed to accept this, and went on strike. George Fenwick had been apprenticed at 12 years of age. With his "loyal heads" and others, he printed the newspaper, and this continued until the strike ended.

The compositors set up a "vigilance" committee to ensure no outside compositors arrived by ship or train, and local printers promised loyalty. In May, the management offered the strikers re-employment, but at this time the public were writing letters of support for the strikers. Concerned for the freedom of the press, Fenwick published these in his newspaper. However, he remained fiercely opposed to the "interference" of the Otago Typographical Association, calling it the most "dictatorial, arbitrary, and tyrannical of trade unions".³⁰

The compositors had begun printing their own paper, the *Daily News*, to publicise their

own concerns. The Tarawera eruption occurred at this time, and the paper ceased when advertising revenue declined. In February 1887 the strike officially ended.

Fenwick's hostility towards the strikers was probably due to his ownership of the *Times*. A humanitarian by nature, he was soon to head an inquiry into Sweating in the Clothing Industry, when "appalling revelations" surrounding Dunedin's downtrodden seamstresses were revealed. The Tailors' and Tailoresses' Union was formed as a result of this inquiry. (Fenwick also founded Dunedin's S.P.C.A. as a result of his concern for horses.)

In the following decade, improved economic conditions brought about by the expansion of refrigerated meat exports, and other factors, improved the lot of workers.

In 1878 trade unions received legal recognition. In 1881, a New Zealand Typographical Association was formed, with

branches in the main centres. This was dissolved in 1889.

With the introduction of the Industrial Conciliation and Arbitration Act of 1894, Printers' Craft Unions began to be registered.

Some 3 decades were to elapse before the unification of the 2 main unions—the Federation of Typographical Unions (e.g., hand and machine typographers, bookbinders, and printers' machinists), and the Related Trades Unions (e.g., letter-press machinists, lithographers, etc.).

Continuing efforts towards unity were made by a radical group of Wellington typographers, who in 1922 founded the trade journal, *Imprint*. In 1925, a national 45-hour week was introduced, followed by a 44-hour week a year later. In 1933, towards the end of the 1929–34 Depression, a Printing Trades Federation was formed.

In 1913, the Government Printing Office became an affiliated member of the present day Public Service Association, with one

determination covering all the various printing trade groups.

In 1935, a Labour government was elected; in 1937 a 40-hour week was negotiated, and 1939 saw the registration of the national Printing and Related Trades Industrial Union of Workers.

Women in Printers' Unions

Women engaged in the industry experienced much hardship over the years, and had no effective voice for negotiation. Efforts were made in 1917 to establish specific awards, and these were successfully introduced in some areas (Auckland, Dunedin, and Canterbury) but legal pitfalls were encountered which prevented consolidation.

In 1920 the Female Printers' Assistants' Union was established and had 140 members by the year's end. Awards were negotiated and conditions steadily improved.

Independence was maintained for women members until 1939 when they were merged with their national union.

Printing Apprentices

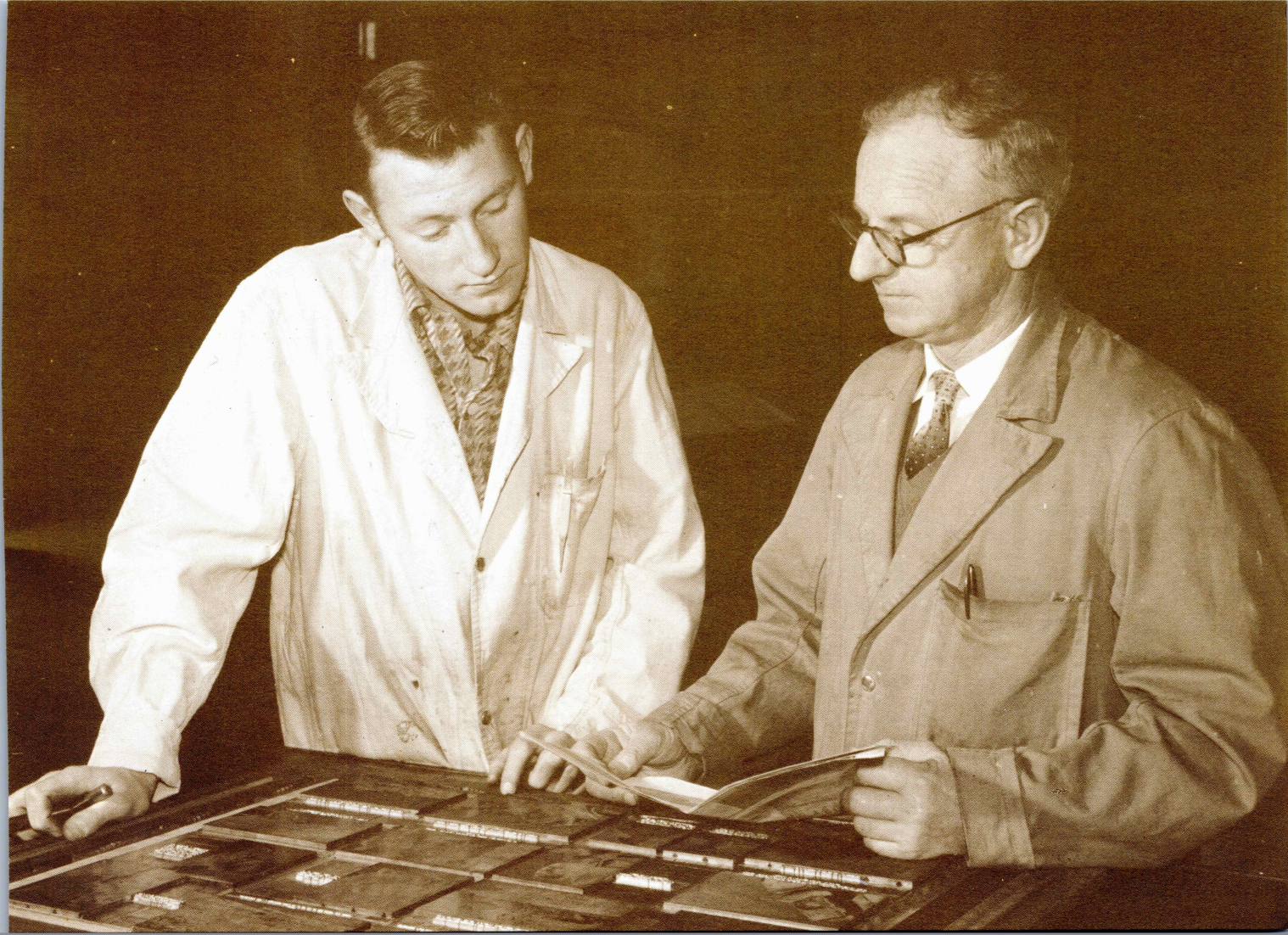
As the demand for printing services increased, so did the need to train skilled journeymen. The Master and Apprentices' Act of 1865 brought into being the system of binding apprenticeships. However, the system of indenturing for a fixed term fell into disuse. During the Sweating Commission of 1890, considerable attention was paid to the use of large numbers of male and female children. These were "often employed for no wages at all and later discharged as unskilled and useless."³¹ This abuse also affected the skilled artisan, whose own employment was placed at risk. The Commission recommended a system of greater control, and also the establishment of Boards of Conciliation and Arbitration. The Industrial Conciliation and Arbitration Act was passed in 1894.

In 1908, The Master and Apprentices' Act of 1865 was consolidated, and set down provisions for apprenticeships, e.g., a

minimum age of 12 years, a term not exceeding 5 years, and the consent of 2 "Justices" for assigning indentures. These "Justices" were also empowered, after a hearing, to commit apprentices who offended in breach of duty or disobedience, to up to 3 days' solitary confinement in prison, while absentee apprentices could be imprisoned for a period not exceeding 3 months.

In 1923, representatives of the Government and the printing industry met, and incentives were provided through the education system for boys to enter trades, with improved working conditions, and training and administrative systems.

A full review of training procedures has recently been carried out by various sectors of the industry, and this should lead to significant changes being made in training procedure.



The Structuring of the Printing Industry

A number of associations have been developed to serve the general interests of the printing industry. These include the Printing Industries Federation of New Zealand (before 1975, this was known as the New Zealand Master Printers' Federation), serving the commercial sector; the Newspaper Publishers Association of New Zealand, serving newspaper publishers; the New Zealand Paperboard Packaging Institute, covering the packaging sector; and the Graphic Arts Platemakers Federation, and the Flexible Packaging Association of New Zealand, serving both these sections of the industry.

The Federation's functions are to give assistance to member companies; to provide a forum for communication; and to generally promote the welfare of the industry.

The Printing Industry Council of New Zealand draws its membership from the bodies previously mentioned.

The New Zealand Institute of Printing was formed to develop and promote good

management and supervision standards in printing and its allied trades. In order to achieve this, an education programme has been developed which provides instruction in sales and marketing; costing and estimating; human relationships; and organisation and management. These courses carry certificates or diplomas in printing administration.

Newspaper Associations

In the isolated settlements of the early colony, newsgathering depended mainly on travellers who arrived by horse or on foot. The arrival of sailing ships and later, steamers, brought newspapers, and news was given orally by passengers and ships' captains.

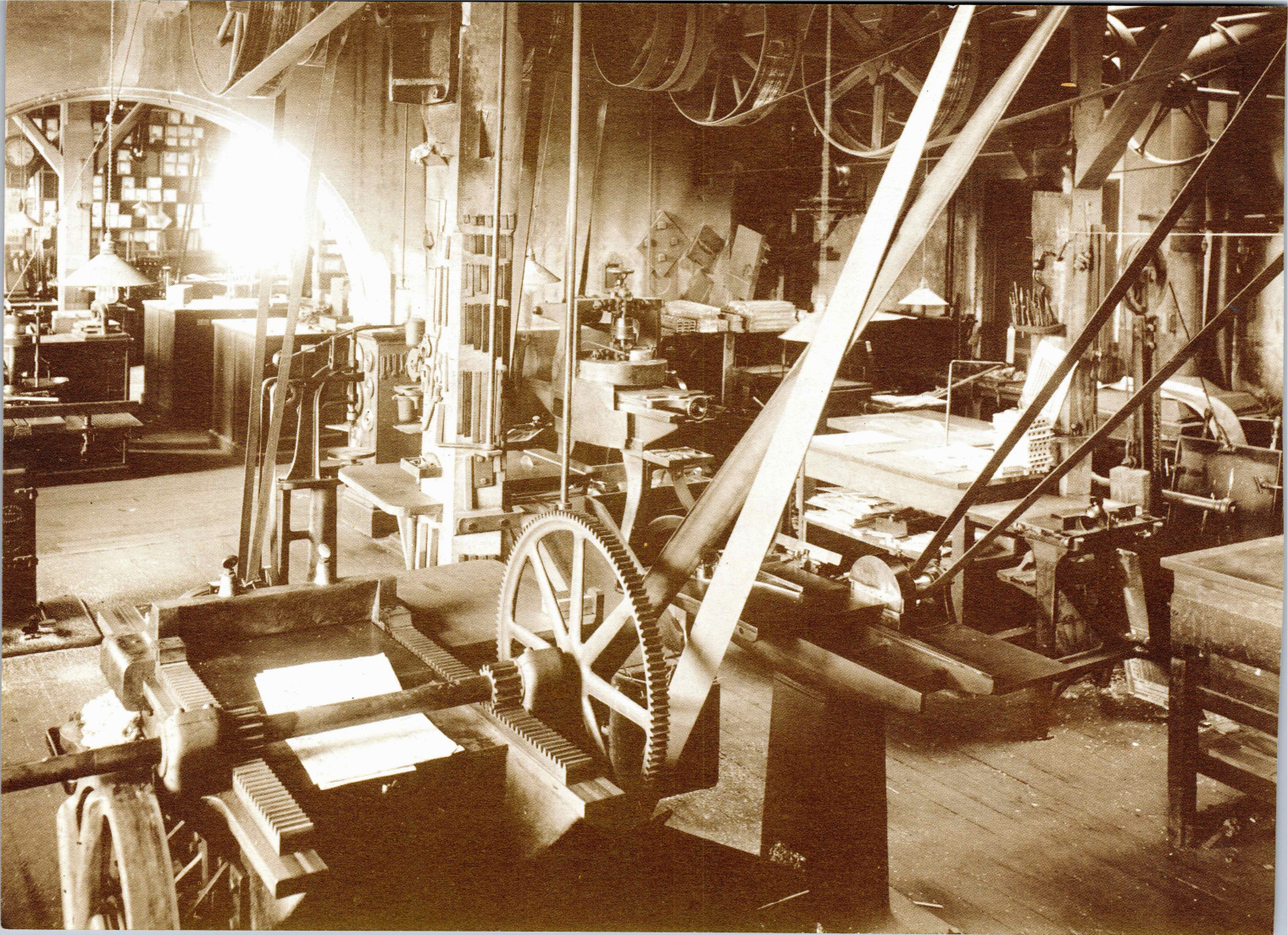
In 1862, telegraphic communication began in Canterbury and Dunedin, and in 1865 lines linked southern Otago with Christchurch. In 1872, the *Herald* in Auckland could receive messages from Dunedin in 2 hours, while overseas news came from Reuters via cable between New Zealand and Australia in 1876. These advances greatly facilitated communication, and a system of control was needed for channelling news.

In 1878 George Fenwick, and 2 others, promoted a Press Association of 27 members, representing morning and evening newspapers of particular centres. These had access to a wire leased from the Government for the collection and distribution of news. Those who were excluded formed the Press

Agency, a rival group, and put pressure on the Government to lease a second wire. The expense of all this competition was ruinous, and caused considerable resentment. In 1879 the two groups combined to form the United Press Association, later to become the New Zealand Press Association. This was managed by E. T. Gillon until his resignation in 1884. (Gillon had been responsible for drafting the Copyright Bill, which led to The Protection of Telegrams Act, 1882.)

In 1898 (under Fenwick) the New Zealand Newspaper Proprietors' Association was formed to safeguard the freedom of the press and to monitor standards of advertising and textual content for the protection of the public. In 1972 it became the New Zealand Newspaper Publishers' Association.

The New Zealand Journalists' Association was formed in 1912 to improve the remuneration of journalists, their working conditions, and professional status.



The Operation of Machinery

*Stereo Room, c. 1900.
Belts and driving wheels
were uncovered.*

Operation of the early handpresses required patience, skill and good coordination between hand and eye.

“The first operation of the hand printer was composing, setting up the letters in a metal composing stick which could accommodate several complete lines of print. In front of him was the manuscript to be copied and a case with box compartments containing the type for each letter of the alphabet, both small and capital, together with all the necessary punctuation marks and spacer blanks. Over 1500 letters would be set in place in the composing sticks in an hour.

As each stick became full of lines, they were placed in order in a shallow tray, known as a galley, and when each galley was filled, an impression was taken off to be checked by the proof reader.

As soon as any errors that were found had been corrected by the typesetter, the pages of type were filled into a . . . frame (chase) . . . , in which they were held securely in place with small wedges.

The actual printing was usually done by 2 men working together, who on an average could produce about 250 impressions in an hour. When the type forme was laid on the carriage of the press, face up, one of the operators inked it with a roller, making as even a distribution of ink as possible.”³²

The other then placed a sheet of paper on a hinged frame called the tympan, folded the brisket or masking frame over it, and then positioned the whole assemblage over the inked type on the bed of the press. He then rolled the carriage under the platen of the press, and pulled the bar, which depressed the platen against paper and type, to make the impression. When the bar was released, the platen rose again, the bed of the press could then be rolled back, and the printed sheet removed, the style inked again, and the procedure repeated until the required number of copies had been obtained.

The first two-feeder Wharfedale appeared in New Zealand in the 1860s. It was of primitive construction, having neither

cylinder check, nor delivery gear for the printed sheets. (A fly-boy was needed to take the sheets off the cylinder).

“On the smaller presses the motive power was provided by the feeder who operated a treadle connected with the fly-wheel, while the large presses had to be turned by hand by a handle attached to the fly-wheel, a very laborious process and one not calculated to increase sobriety among the machinists. The invention of the stick flyer revolutionised the Wharfedale and it stood the test for many years.”³³

A later development was the four-feeder, steam driven Wharfedale machine, such as that imported by the *Christchurch Telegraph*, which had a printing capacity of 5000 copies of 44" × 32" sheets per hour.³⁴

Paper stock preparation was a full-time occupation in itself. Quire by quire, paper had to be taken from the bales, opened and passed through a vat of water and stacked on benches beneath weights until required.

In the Government Printing Office, in the early 1880s, 2 Crossley gas engines, of 3½ and 6 h.p., powered the four-feeder Wharfedales. They were found to be cleaner and cheaper, could be started from full power and carried less danger of fire.

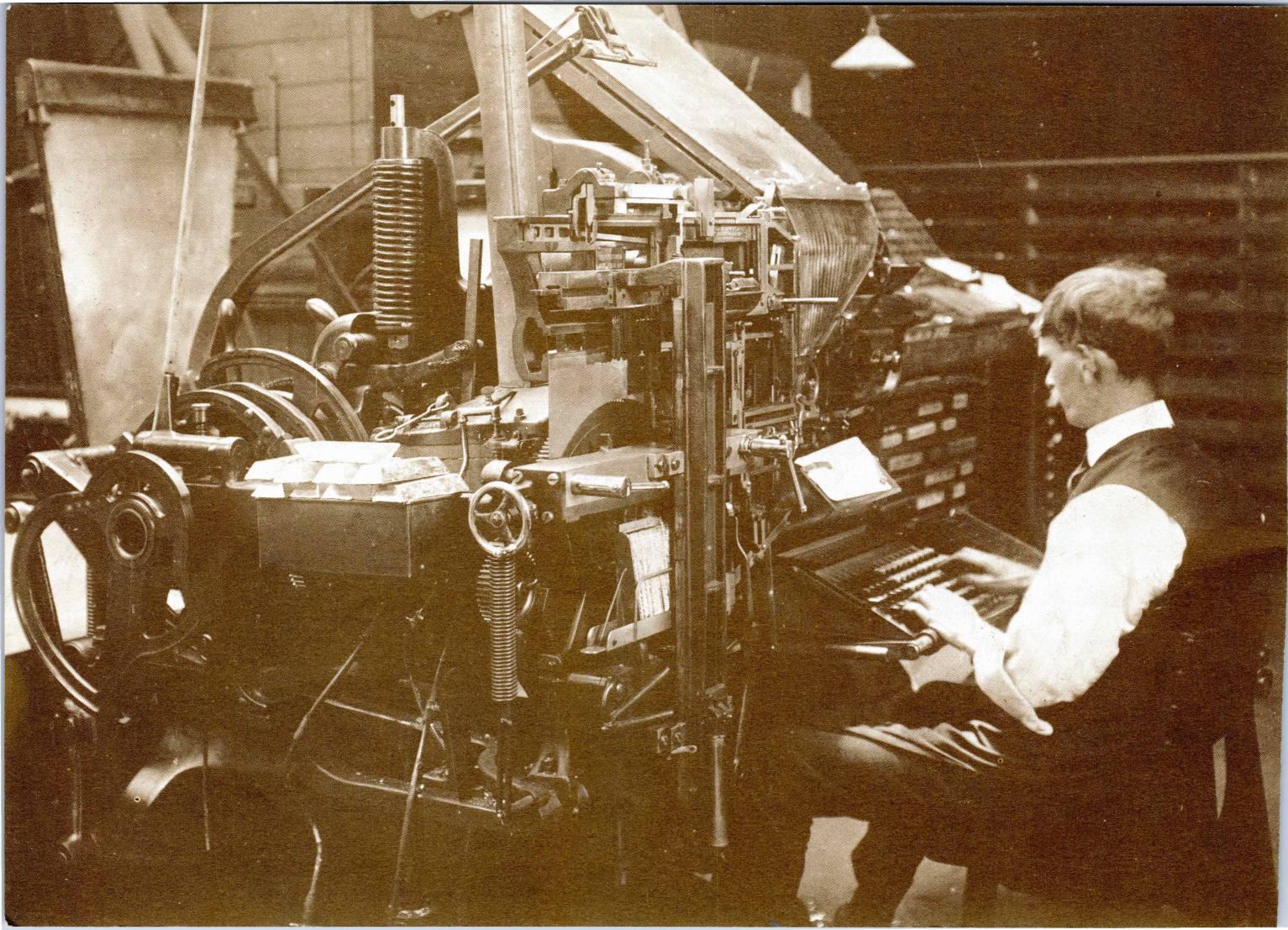
Some machinery in use in the Government Printer's Stationery Store at about this time was a Brehmer sewing machine for sewing stationery and account books; a Brehmer wire-stitching machine for stapling books; an embossing machine; an American double-ruling machine which ruled both sides of the paper at once; a newspaper-folding machine, worked by treadle; and a steamdriven folding machine, capable of folding 2000 copies of *Hansard* an hour.³⁵

The Linotype Machine

In 1897 the first tall, angular keyboard operated typesetting machines—Mergenthalers No. 1—were installed in the *Auckland Star*, closely followed by the *New Zealand Herald* and *Christchurch Press*.

The operation of the keyboard released brass matrices, which carried letters. These were filled into a forme. When raised to a mould, contact with molten metal formed a slug, or "line-o-type". This was then released into a "stick".

Typesetting by machine eliminated the laborious processes of hand composing. As was feared, many compositors did lose their jobs; and with the "old comp" went the passing of an era: "He stood at his frame and handled without wincing some of the most horrible handwriting it is possible to imagine. He prided himself upon his skill in deciphering, and although occasionally he took a long shot at a word or a sentence, he never made a stupid howler . . . this "old comp." could make out the barest suggestion of meaning of a word, even in French or Latin, and knew the right use of italics and accents. He was literally punctilious, for an average busy journalist could, with reason, safely leave the stops to him. He was well informed upon a variety of subjects, from pedigree and 'form', to botany and nautical



tables. A smattering, if you will, but sufficient to enable him to set type with intelligence.”³⁶

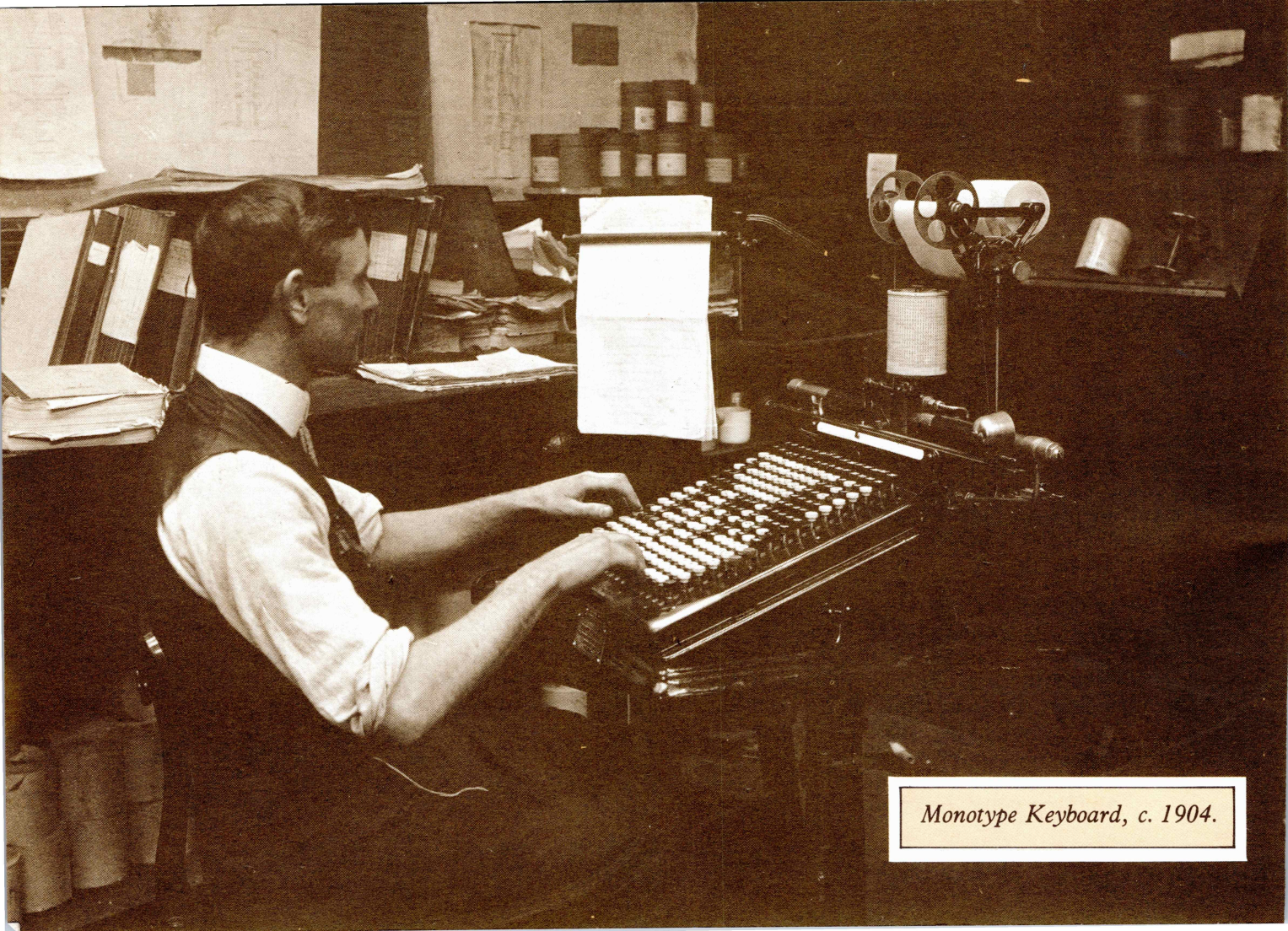
Those used to the old ways needed to be retrained. The intricacies of the Linotype, the responsibility of operating the expensive new machines, and the meeting of soaring production requirements, brought a high level of industrial stress. In the early linotype machines, danger existed in “squirts” from the hot metal alloy of tin, antimony, and lead, and there were many burns. Operators wore leather aprons and boots, making it difficult to work efficiently. But in the long term, in the greater output, many extra jobs were created.

In 1882, the *New Zealand Herald* led the way with the installation of the first of the highspeed rotary presses from Britain. Other newspapers soon followed. The rotary machines were very dangerous, as the long flapping belts and driving wheels which drove the machines from overhead shafting were unguarded. At the Government Printing Office, “shafting could be controlled only

from the engine room, in which a 70 h.p. single-cylinder steam engine ran continuously during working hours.”³⁷

After the Linotype, the next great advance in typesetting was the Monotype. This machine was introduced into New Zealand in 1904. The operator at the keyboard produced a punched paper tape, which then programmed the casting machine to cast the letters one by one and assemble them automatically into lines which had already been justified (spaced). The setting and composing of type involved casting each letter separately by means of a keyboard and caster, and arranging these one by one. It was particularly useful for tabulations and book work.

The Intertype, which worked on same slugcasting principle as the Linotype, was the third typesetting machine to appear. This machinery arrived in New Zealand in 1917. Favoured typefaces are practically the same as Linotype—Excelsior, Textype and Ionic No. 5.



Monotype Keyboard, c. 1904.

A development in printing technique which was to lead to a revolution in the industry, was process engraving. This had become established about the 1890s, inspiring a host of "commercially impossible" inventions. One of these was the "Highlight Process" developed by F. M. Sears from the Government Printing Office Lithographic Branch. His invention was "something approaching" photo-offset. While this achieved little initial success, Sears persevered. Some years later, he met an American inventor, I. W. Rubel, in Chicago. Rubel was probably working along parallel lines to Sears. "He was working on a flatbed lithographic machine and using a rubber blanket as a packing on his impression cylinder. The girl feeder failed to replace a sheet of paper in the grippers at the correct time, and as a result the inked stone printed on the rubber blanket. Consequently, at the next revolution of the cylinder there was an impression on both sides of the sheet; on one side appeared a print from the stone, and on the other a reversed image from the rubber blanket. Rubel noticed that the impression on

the back of the sheet was better than that on the front, and directed his efforts to achieving by design what had occurred by accident. The rotary offset machine was soon produced."³⁸

Rubel's machine was used to develop Sears' process and the two went into partnership.

In 1914 "offset" was introduced to New Zealand by Wilson and Horton. This was used "primarily for the production of maps, charts, and posters. Offset lithography quickly extended its usefulness to the field of letterpress . . . Simplicity of operation and speed of production are two of its greatest merits".³⁹



The Future

The rate of change in printing technology, whilst rapid over the past 60 years, will pale into insignificance compared with the changes that are likely to take place in the next 60 years.

However, within the immediate future (i.e., within the next 5 years) the major changes will be centred around the electronic composing room. The primary objective will be to combine text, photographs, and/or illustrations, which can be viewed in their combined form and manipulated on a computer screen.

From the electronic composing room, output could be to a variety of mediums as follows:

- conventional hard copy output which would be printed by conventional printing processes
- video text service
- computer to voice for the production of talking books

- alternatively, voice to computer input, the output of which could then be typeset in the normal fashion
- magnetic tape
- floppy disks
- computer to computer links
- international computer networks for sending/receiving documents and/or manuals in electronic form.

Training will play a major role in these technological advances and new disciplines (or trades) will need to be developed to cope with these advances. However, the new generation of school-leavers should be more adaptable to cope with changes in technology in the future than perhaps the current generation is.

Demand publishing will also increase, which will reduce stocks held in warehouses, which in turn will affect the volume of conventional printing. Demand printing in this context means the information is held in a database and is printed out as and when required. The speed at which this information can be

output to hard copy will determine the rate of this change.

Impact printers can currently print out at 2250 lines per minute. These are already being replaced by laser printers which can print out at speeds up to 35 000 lines per minute. Whilst these laser printers are relatively expensive at the present time and may be uneconomic for other than large enterprises, as they gain more recognition costs will come down and their use will be more widespread in the future. The Government Printing Office is already experimenting in this field using small, low speed, low cost laser printers for proofing legislative and parliamentary work.

As the cost of entering the electronic composing room decreases there will be a greater emphasis on the use of colour. Press manufacturers will be designing new presses which are faster and more simple to operate if they are to stave off competition from compact laser printers that will produce a full-colour hard copy printout of an electronic image.

The move to the paperless office will play an increasingly important role in the capture of original data. Printers in the future will need to work with and advise their clients on selecting the correct type of office equipment, in order for it to be compatible with the technology of their print shop.

With such a rapid change over the past 60 years, the printing industry has been completely transformed. The "romance" of the old print shop with its peculiar smell of hot metal, ink, and surrounded by a general aura of chaos, is now being replaced by the more clinical computer environment of tomorrow. It is partly for these reasons that members of the printing trade and amateur enthusiasts have developed within New Zealand, printing museums such as those at Ferrymead, Christchurch, MOTAT, Auckland, and the printing museum section of the Silverstream Railway in Wellington. These are attempts at preserving the romance of yesteryear and the old equipment and methods which have served New Zealand so well for the past 150 years.

References

- ¹MacMillan, Fiona. *The Spread of Printing: Eastern Hemisphere, New Zealand*. Amsterdam, Van Gendt, 1969, p. 9.
- ²*New Zealand and The World's Book*. Printed by Wright and Carman for the British and Foreign Bible Society. Wellington, 1964, p. 15.
- ³McKenzie, D. F. "The Sociology of a Text: Orality, Literacy and Print in Early New Zealand". In *The Library*, Vol. 6, No. 4, December 1984. Printed in Leeds, England, by W. S. Maney and Son.
- ⁴Harding, R. Coupland ed. *Selections from Typo: A New Zealand Typographical Journal, 1887-1897*. Wellington, Wai-te-ata Press, 1982, p. 86.
- ⁵Morley, William. *The History of Methodism in New Zealand*. Wellington, McKee & Co., 1900, p. 60.
- ⁶*Ibid.*
- ⁷Morley, William. Op. cit. pp. 79-80.
- ⁸Cave, Roderick, and Kathleen Coleridge. "For Gospel and Wool Trade: Early Printing in New Zealand." *Printing History*. No. 13 (1985), p. 4. Forthcoming.
- ⁹McLintock, A. H. ed. *An Encyclopaedia of New Zealand*. (In 3 Vols.) Wellington, Government Printer, 1966, p. 667.
- ¹⁰Kwasitsu, L. E. "Printing and the Book Trade in Early Nelson". M. A. Thesis, Victoria University of Wellington, 1985, p. 10.
- ¹¹Cave, Roderick, and Kathleen Coleridge. Op. cit. p. 9.
- ¹²Kwasitsu, L. E. Op. cit. p. 31.
- ¹³Meiklejohn, G. M. *Early Conflict of Press and Government*: Auckland, Wilson and Horton 1953, p. 2.
- ¹⁴*Printing, Bookselling & their Allied Trades in New Zealand circa 1900*. Distributed by the Wai-te-ata Press, Wellington, 1980, p. 27.
- ¹⁵McKay, Richard Alexander. *A History of Printing in New Zealand 1830-1940*. Published by R. A. McKay for the Wellington Club of Printing House Craftsmen, 1940, p. 217.
- ¹⁶Printed in Auckland; book production and design past and present. Auckland Public Libraries, 1957, p. 5.
- ¹⁷Pearce, G. L. *The Pioneer Craftsmen of New Zealand*. Auckland, Collins, 1982, p. 199.
- ¹⁸Harding, R. Coupland. *Typo*. Op. cit. p. 30.
- ¹⁹McLintock, A. H. Op. cit. p. 872.
- ²⁰Lawlor, P. A. *The Caxton Press: Some impressions and a bibliography*. Beltane Book Bureau, 1951, pp. 8-9.
- ²¹McLintock, A. H. Op. cit. p. 873.
- ²²Cave, Roderick. *The Private Press*. 2nd ed. rev. and enl. New York: R. R. Bowker, 1982, p. 287.
- ²³Cave, Roderick. Op. cit. p. 290.
- ²⁴Glue, W. A. *The History of the Government Printing Office*. Wellington, R. E. Owen, Government Printer, 1966, p. 41.
- ²⁵Glue, W. A. Op. cit. p. 83.
- ²⁶*Printing, Bookselling & their Allied Trades in New Zealand*. Op. cit. p. 24.
- ²⁷Glue, W. A. Op. cit. p. 54.
- ²⁸Smith, A. A. *Printing in Canterbury: a History of Newspapers and Printing Houses in the Province from the Earliest Times*. Christchurch, Christchurch Club of Printing House Craftsmen, 1953, p. 41.
- ²⁹*G. P. Print*. Official Organ of the New Zealand Government Printing and Stationery Department, December 1950, p. 17.
- ³⁰Smith, Peter J. *Type of a century: 100 years of trade unionism in the Printing Industry*. Dunedin, 1974, p. 17.
- ³¹Thornton, R. C. "Printing Apprenticeship in New Zealand". A paper presented by R. C. Thornton at the Printing Industry Manpower Conference in November 1964.
- ³²Pearce, G. L. Op. cit. pp. 202, 204.
- ³³McKay, R. A. Op. cit. p. 104.
- ³⁴Glue, W. A. Op. cit. p. 57.
- ³⁵Glue, W. A. Op. cit. p. 66.
- ³⁶McKay, R. A. Op. cit. p. 106.
- ³⁷Glue, W. A. Op. cit. p. 98.
- ³⁸*G. P. Print*. May 1953, p. 7.
- ³⁹Glue, W. A. Op. cit. p. 131.

Bibliography

- The Bible and the Bible Society in New Zealand 1846-1946.* Printed by A. H. & A. W. Reed for the British and Foreign Bible Society, Wellington 1946.
- Cave, Roderick. *The Private Press*. 2nd ed. rev. and enl. New York: R. R. Bowker, 1983.
- Cave, Roderick, and Kathleen Coleridge. "For Gospel and Wool Trade: Early Printing in New Zealand". *Printing History* No. 13 (1985). Forthcoming.
- Colenso, William. *Fifty Years ago in New Zealand*. . . . Napier: R. C. Harding, 1888.
- Fletcher, John: "From the Waikato to Vienna and back: how two Maoris learned to print". In *Bulletin*, Bibliographical Society of Australia and New Zealand, Vol. 8 No. 3, 1984.
- Griffith, Penelope. *Printing and Publishing in New Zealand; a preliminary bibliography*. Wellington: Library School, National Library of New Zealand, 1974.
- Glue, W. A. *History of the Government Printing Office*. Wellington: R. E. Owen, Government Printer, 1966.
- G. P. Print. Official Organ of the New Zealand Government Printing and Stationery Department; various.
- Grayland, Eugene C. *Unusual Newspapers of New Zealand and Australia*. Auckland: Colenso Press, 1969.
- Harding, R. Coupland ed. *Selections from Typo: a New Zealand Typographical Journal, 1887-1897*. Wellington: Wai-te-ata Press, 1982.
- Kwasitsu, L. E. "Printing and the Book Trade in Early Nelson". M. A. Thesis, Victoria University of Wellington, 1985.
- Lawlor, P. A. *The Caxton Press: Some impressions and a Bibliography*. Wellington: Beltane Book Bureau, 1951.
- McKay, Richard Alexander. *A History of Printing in New Zealand, 1830-1940*: Published by R. A. McKay for the Wellington Club of Printing House Craftsmen, 1940.
- McKenzie, D. F. "The Sociology of a Text: Orality, Literacy and Print in Early New Zealand." In *The Library*, Vol. 6 No. 4, December 1984. Printed in Leeds, England, by W. S. Maney and Son.
- McLintock, A. H. ed. *An Encyclopaedia of New Zealand*. (In 3 Vols.) Wellington, Government Printer, 1966.
- Macmillan, Fiona. *The Spread of Printing: Eastern Hemisphere, New Zealand*. Amsterdam: Van Gendt, 1969.
- Maslen, K. D. *Victorian Typefaces of New Zealand*. The Bibliographical Society of Australia and New Zealand. Melbourne, 1981.
- Meiklejohn, G. M. *Early Conflict of Press and Government*. . . . Auckland: Wilson and Horton, 1953.
- Morley, William. *The History of Methodism in N.Z.* Wellington, McKee & Co, 1900.
- New Zealand and the World's Book*. Printed by Wright and Carman for The British and Foreign Bible Society, Wellington, 1964.
- New Zealand Printing & Related Trades Industrial Union of Workers, Wellington Branch: Centennial Review 1862-1962*. Wellington, 1962.
- Pearce, G. L. *The Pioneer Craftsmen of New Zealand*. Auckland, Collins, 1982.
- Printed in Auckland*. Auckland Public Libraries. Pelorus Press, 1956.
- Printing, Bookselling & their Allied Trades in New Zealand. Circa 1900*. Distributed by the Wai-te-ata Press, Wellington, 1980.
- The Press 1861-1961*. Christchurch Press Company Ltd. Christchurch 1963.
- Scholefield, Guy H. *Newspapers in New Zealand*. Wellington: A. H. & A. W. Reed, 1958.
- Smith, A. A. *Printing in Canterbury: a History of Newspapers and Printing Houses in the Province from the Earliest Times*. Christchurch: Christchurch Club of Printing House Craftsmen, 1953.
- Stewart, Peter J. *Type of a century: 100 years of trade unionism in the Printing Industry in Otago*. Dunedin: Otago Branch of the N.Z. Printing and Related Trades Industrial Union of Workers, 1974.
- Thornton, R. C. "Printing Apprenticeship in New Zealand". A paper presented by R. C. Thornton at the Printing Industry Manpower Conference in November 1964.
- Williams, H. W. *A Bibliography of Printed Maori to 1900*. Dominion Museum, Wellington, 1924.

Glossary

Albion press: A hand printing press devised in the 1820s by R. W. Cope of London.

Belie Sauvage press: A cylinder printing press devised by Samuel Bremner about 1860. The motion of the impression cylinder was intermittent, remaining stationary while the sheet was removed and the next one laid on.

Bookbinder: A person who assembles and binds together printed sheets to form a book.

Brass matrices: *see* matrix.

Brass rule: Strips of brass used to print lines and simple borders.

Colour photography: Photographic reproduction of a subject or original in its natural colours.

Composing stick: An adjustable metal handtray for receiving moveable types as they are set.

Compositor: A person who sets type and performs all the necessary assembly of the formes for the press.

Cylinder check: The impression cylinder remains stationary while the printed sheet is removed and the next laid on for printing.

Delivery gear: The system that carries the printed sheet away from the impression cylinder.

Double crown: A standard size for printing and wrapping papers, 50.7 × 76.1 cm (20 × 30 ins).

Eagle press: A hand printing press devised by James Maxwell of New York in 1836.

Fly-boy: The assistant responsible for removing the printed product from the press or conveyer system of a rotary press.

Forme: Type matter and blocks assembled into pages and locked up into a chase ready for printing.

Four colour process: Printing in yellow, red, blue and black to produce a complete colour reproduction.

Frame: The cabinet containing cases of type, galley units, drawers, cupboards, bins for spacing and a place for the compositor to work at.

Fugitive ink: An ink used in the production of items of immediate cash value, e.g., cheques. The background of the document is printed with an ink which changes when treated with water ink eradicators. Most cheques are printed with inks containing water soluble dyestuffs. These bleed in the presence of water eradicators and any unofficial alterations are easily seen.

Frisket: A thin iron frame jointed to the tympan of a handpress to prevent the sheet of paper being dirtied or blackened.

Galley: A flat oblong tray for holding composed type.

Gaveaux press: A French model of the English Stanhope press, manufactured in the 1830s.

Halftones: A technique of reproducing the different tonal shadings of an illustration by a series of tiny dots.

Hand Platen press: *see* Platen press.

Hand press: A printing press that is worked by hand, not by power.

Heliotype: A printing process which uses no screen to reproduce illustrations in continuous tone. (Also known as Collotype and Photogelatin.)

Imposing stone: A flat iron surface (formerly stone) on which formes are imposed. *See* Imposition.

Imposition: The arranging of pages for presswork so that when printed and folded the work will read in the correct order.

Inking table: A flat surface (of iron or plate glass) on which the ink-roller is moved until evenly covered in a film of ink.

L & M Miehle: A model of printing press manufactured by Linotype and Machinery Ltd. (L & M) of London. L & M produce linotype, offset and letterpress equipment.

Leads: Thin strips of lead of varying thicknesses used to separate lines of type.

Letterpress machinist: *see* Printer's machinist.

Linotype: A composing machine which casts solid slugs or lines of type. Invented and developed by Ottmar Mergenthaler in the United States between 1876 and 1886.

Lithographer: One who specialises in the art and process of lithographic printing.

Locked up: *see* Locking up.

Locking up: The adjusting of quoins between the set type and the sides of a metal frame, known as a chase, to secure the forme in position for printing.

Matrix: A metal mould in which type is cast. Brass dies used in hot metal composition are also called matrices.

Offset: *see* Offset lithography.

Offset lithography: A printing process in which the inked image is first transferred from the plate to a rubber blanket, and then "offset" onto the paper.

Photogravure: An intaglio process using photographic means to produce an image on a metal surface for printing from.

Photolithography: The photographic process of making a plate for printing by offset lithography.

Platen press: A printing press in which the paper rests on a flat surface known as the platen, and is forced against a forme of type to make an impression. Early platen presses were operated by a hand lever or treadle.

Pressroom: The room in which the printing operation takes place.

Printer's machinist: A person responsible for setting up and supervising the actual running of the printing press.

Quire: The twentieth part of a ream; 24 sheets and one "outside" sheet making 25.

Roller: A composition coated cylinder for inking type formes or printing plates in printing operations.

Slug: Lines of type in the form of metal bars. Produced on the Linotype, Intertype or Ludlow machines.

Specimen book: A book of founts, alphabets, ornaments, etc., issued by printers and foundries to make known the range of their types available.

Stanhope press: The first all-iron printing press invented by the third Earl Stanhope about 1800.

Stick: The tray in which slugs are received during the typesetting operation.

Stick Flyer: A type of delivery mechanism on older printing machines. *See* Delivery gear.

Stock cut: A wood, copper or steel plate bearing a design cut or engraved; an illustration printed from such plates.

Tea paper: A class of tough non-porous paper used specifically in the tea trade.

Treadle Platen: *see* Platen press.

Tympan: Hard paper used to cover the platen of a printing press to provide the correct support for the sheet being printed. *See* Platen press.

Type: A rectangular metal casting having on one end a letter or character in relief.

Type-cutter: An engraver of type punches.

Typeface: The printing surface of a style of type.

Typesetter: *see* Compositor.

Typographer: Originally a collective term for compositor and printer, it now refers to a person involved in the design of printed matter.

Wharfedale press: A stop-cylinder printing press devised about 1858 by William Dawson and David Payne of Yorkshire. The type was carried on a travelling flat bed passed under inkers to the paper bearing cylinder.

Wire-stitching (sewing) machine: A machine for fastening sheets, sections or signatures by means of a wire staple.

